

# PROCEEDINGS OF SPIE

## *Optical and Infrared Interferometry*

**Markus Schöller**  
**William C. Danchi**  
**Françoise Delplancke**  
*Editors*

**23–27 June 2008**  
**Marseille, France**

*Sponsored by*  
SPIE  
SPIE Europe

*Cooperating Organizations*

AAS—American Astronomical Society (USA) • ASJ—Astronomical Society of Japan (Japan)  
AURA—Association of Universities for Research in Astronomy, Inc. (USA) • Ball Aerospace & Technologies Corporation (USA) • CNRS—Centre National de la Recherche Scientifique (France) • EAS—European Astronomical Society (Switzerland) • ESO—European Southern Observatory (Germany) • IAU—International Astronomical Union (France) • INSU—Institut National des Sciences de l'Univers (France)  
LAM—Laboratoire d'Astrophysique de Marseille (France) • MPE—Max-Planck-Institut für extraterrestrische Physik (Germany) • NAOJ—National Astronomical Observatory of Japan (Japan)  
NASA—NASA Goddard Space Flight Center (USA) • Northrop Grumman Corporation (USA) • OAMP—Observatoire Astronomique de Marseille Provence (France) • OPTICON—Optical Infrared Coordination Network (United Kingdom) • RadioNet—Advanced Radio Astronomy in Europe (United Kingdom)  
Royal Astronomical Society (United Kingdom) • Science & Technology Facilities Council (United Kingdom) • SFO—Société Française d'Optique (France) • Competitiveness Cluster: POPsud-Pôle Optique & Photonique (France) • Optitec Sud (France)

*Published by*  
SPIE

**Volume 7013**

Proceedings of SPIE, 0277-786X, v. 7013

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

The papers included in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. The papers published in these proceedings reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from this book:

Author(s), "Title of Paper," in *Optical and Infrared Interferometry*, edited by Markus Schöller, William C. Danchi, Françoise Delplancke, Proceedings of SPIE Vol. 7013 (SPIE, Bellingham, WA, 2008) Article CID Number.

ISSN 0277-786X  
ISBN 9780819472236

Published by  
**SPIE**  
P.O. Box 10, Bellingham, Washington 98227-0010 USA  
Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445  
SPIE.org

Copyright © 2008, Society of Photo-Optical Instrumentation Engineers

Copying of material in this book for internal or personal use, or for the internal or personal use of specific clients, beyond the fair use provisions granted by the U.S. Copyright Law is authorized by SPIE subject to payment of copying fees. The Transactional Reporting Service base fee for this volume is \$18.00 per article (or portion thereof), which should be paid directly to the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923. Payment may also be made electronically through CCC Online at [copyright.com](http://copyright.com). Other copying for republication, resale, advertising or promotion, or any form of systematic or multiple reproduction of any material in this book is prohibited except with permission in writing from the publisher. The CCC fee code is 0277-786X/08/\$18.00.

Printed in the United States of America.

Publication of record for individual papers is online in the SPIE Digital Library.



[SPIEDigitalLibrary.org](http://SPIEDigitalLibrary.org)

---

**Paper Numbering:** Proceedings of SPIE follow an e-First publication model, with papers published first online and then in print and on CD-ROM. Papers are published as they are submitted and meet publication criteria. A unique, consistent, permanent citation identifier (CID) number is assigned to each article at the time of the first publication. Utilization of CIDs allows articles to be fully citable as soon they are published online, and connects the same identifier to all online, print, and electronic versions of the publication. SPIE uses a six-digit CID article numbering system in which:

- The first four digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B ... 0Z, followed by 10-1Z, 20-2Z, etc.

The CID number appears on each page of the manuscript. The complete citation is used on the first page, and an abbreviated version on subsequent pages. Numbers in the index correspond to the last two digits of the six-digit CID number.

# Contents

## Part One

- xxix Conference Committee  
xxxiii *High redshift galaxy surveys (Plenary Paper) [7016-500]*  
M. Iye, National Astronomical Observatory of Japan (Japan)

---

### HIGHLIGHTS

- 7013 02 **Imaging the surface of Altair and a MIRC update** [7013-01]  
J. D. Monnier, M. Zhao, Univ. of Michigan (United States); E. Pedretti, N. Thureau, Univ. of St. Andrews (United Kingdom); M. Ireland, Univ. of Sydney (Australia); P. Muirhead, Cornell Univ. (United States); J.-P. Berger, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); R. Millan-Gabet, Michelson Science Ctr. (United States); G. Van Belle, European Southern Observatory (Germany); T. ten Brummelaar, H. McAlister, CHARA, Georgia State Univ. (United States); S. Ridgway, National Optical Astronomy Observatory (United States); N. Turner, L. Sturmann, J. Sturmann, CHARA, Georgia State Univ. (United States); D. Berger, A. Tannirkulam, J. Blum, Univ. of Michigan (United States)
- 7013 03 **VLTI-AMBER observations of Eta Carinae with the FINITO fringe tracker and spectral resolution 12000 (Invited Paper)** [7013-02]  
G. Weigelt, Max-Planck-Institut für Radioastronomie (Germany); O. Chesneau, Univ. Nice Sophia Antipolis, CNRS, Observatoire de la Côte d'Azur (France); T. Driebe, Max-Planck-Institut für Radioastronomie (Germany); R. Foy, Ctr. de Recherche Astronomique de Lyon, Univ. Claude Bernard, CNRS (France); D. Fraix-Burnet, Lab. d'Astrophysique de Grenoble, Univ. Joseph Fourier, CNRS (France); J. H. Groh, K.-H. Hofmann, S. Kraus, Max-Planck-Institut für Radioastronomie (Germany); F. Malbet, Lab. d'Astrophysique de Grenoble, Univ. Joseph Fourier, CNRS (France); A. Marconi, Univ. di Firenze (Italy); P. Mathias, Univ. Nice Sophia Antipolis, CNRS, Observatoire de la Côte d'Azur (France); F. Millour, Max-Planck-Institut für Radioastronomie (Germany); J.-L. Monin, Lab. d'Astrophysique de Grenoble, Univ. Joseph Fourier, CNRS (France); R. G. Petrov, Univ. Nice Sophia Antipolis, CNRS, Observatoire de la Côte d'Azur (France); F. Rantakyrö, European Southern Observatory (Chile); A. Richichi, European Southern Observatory (Germany); D. Schertl, Max-Planck-Institut für Radioastronomie (Germany); M. Schöller, European Southern Observatory (Germany); P. Stee, Univ. Nice Sophia Antipolis, CNRS, Observatoire de la Côte d'Azur (France); L. Testi, M. Wittkowski, European Southern Observatory (Germany)

---

### STATUS I

- 7013 04 **The SUSI instrument: new science and technology (Invited Paper)** [7013-03]  
P. Tuthill, J. Davis, M. Ireland, A. Jacob, J. North, S. Owens, J. G. Robertson, W. Tango, Sydney Univ. (Australia); T. ten Brummelaar, The CHARA array, Georgia State Univ. (United States)
- 7013 05 **Recent progress at the MIRA: development of fringe tracking system (Invited Paper)** [7013-04]  
N. Ohishi, M. Yoshizawa, J. Nishikawa, N. Murakami, Y. Torii, S. Suzuki, K. Kubo, H. Iwashita, National Astronomical Observatory of Japan (Japan); Y. Kondo, Hosei Univ. (Japan)

- 7013 06 **NPOI: recent progress and future prospects (Invited Paper)** [7013-05]  
D. J. Hutter, J. A. Benson, T. Buschmann, M. DiVittorio, R. T. Zavala, K. J. Johnston, U.S. Naval Observatory (United States); J. T. Armstrong, R. B. Hindsley, Naval Research Lab. (United States); H. R. Schmitt, Naval Research Lab. (United States) and Interferometrics, Inc. (United States); J. H. Clark III, S. R. Restaino, Naval Research Lab. (United States); C. Tycner, Central Michigan Univ. (United States); A. M. Jorgensen, New Mexico Institute of Mining and Technology (United States); S. Davis, Lowell Observatory (United States)
- 7013 07 **Science and technical progress at the Palomar Testbed Interferometer (Invited Paper)**  
[7013-06]  
R. L. Akeson, California Institute of Technology (United States)
- 7013 08 **An update on the CHARA array (Invited Paper)** [7013-07]  
T. A. ten Brummelaar, The CHARA Array, Georgia State Univ., Mount Wilson Observatory (United States); H. A. McAlister, CHARA, Georgia State Univ. (United States); S. Ridgway, National Optical Astronomy Observatories (United States); D. R. Gies, CHARA, Georgia State Univ. (United States); J. Sturmann, L. Sturmann, N. H. Turner, A. Mérand, R. Thompson, C. D. Farrington, P. Goldfinger, The CHARA Array, Georgia State Univ., Mount Wilson Observatory (United States)

---

## SCIENCE I

---

- 7013 09 **The asymmetric mass-loss of evolved stars** [7013-08]  
O. Chesneau, Univ. Nice Sophia Antipolis, CNRS, Observatoire de la Côte d'Azur (France)

---

## STATUS II

---

- 7013 0A **Keck Interferometer nuller update (Invited Paper)** [7013-09]  
M. M. Colavita, E. Serabyn, A. J. Booth, S. L. Crawford, J. I. Garcia-Gathright, E. R. Ligon, B. L. Mennesson, C. G. Paine, Jet Propulsion Lab. (United States); P. L. Wizinowich, S. Ragland, E. C. Appleby, B. C. Berkey, A. Cooper, W. Dahl, J. T. Gathright, M. A. Hrynevych, D. W. Medeiros, D. Morrison, T. Panteleeva, B. Smith, K. R. Summers, K. Tsubota, C. Tyau, E. Wetherell, J. M. Woillez, W. M. Keck Observatory (United States); R. L. Akeson, R. Millan-Gabet, C. Felizardo, C. D. Koresko, J. S. Herstein, California Institute of Technology (United States)
- 7013 0B **Recent progress at the Keck Interferometer: operations and V<sup>2</sup> science** [7013-10]  
S. Ragland, P. Wizinowich, W. M. Keck Observatory (United States); R. Akeson, California Institute of Technology (United States); M. Colavita, Jet Propulsion Lab. (United States); E. Appleby, B. Berkey, W. M. Keck Observatory (United States); A. Booth, Jet Propulsion Lab. (United States); A. Cooper, W. M. Keck Observatory (United States); S. Crawford, Jet Propulsion Lab. (United States); W. Dahl, W. M. Keck Observatory (United States); C. Felizardo, California Institute of Technology (United States); J. Garcia-Gathright, Jet Propulsion Lab. (United States); J. Gathright, W.M. Keck Observatory (United States); J. Herstein, California Institute of Technology (United States); M. Hrynevych, W. M. Keck Observatory (United States); C. Koresko, California Institute of Technology (United States); R. Ligon, Jet Propulsion Lab. (United States); D. Medeiros, W. M. Keck Observatory (United States); B. Mennesson, Jet Propulsion Lab. (United States); R. Millan-Gabet, California Institute of Technology (United States); D. Morrison, W. M. Keck Observatory (United States); C. Paine, B. Parvin, Jet Propulsion Lab. (United States); T. Panteleeva, W. M. Keck Observatory (United States); E. Serabyn, Jet Propulsion Lab. (United States); B. Smith, K. Summers, K. Tsubota, C. Tyau, E. Wetherell, J. Woillez, W. M. Keck Observatory (United States)

- 7013 0C **The Very Large Telescope Interferometer: an update (Invited Paper)** [7013-11]  
 P. Haguenauer, European Southern Observatory (Chile); R. Abuter, European Southern Observatory (Germany); J. Alonso, J. Argomedo, European Southern Observatory (Chile); B. Bauvir, European Southern Observatory (Germany); G. Blanchard, European Southern Observatory (Chile); H. Bonnet, European Southern Observatory (Germany); S. Brillant, M. Cantzler, European Southern Observatory (Chile); F. Derie, F. Delplancke, N. Di Lieto, C. Dupuy, European Southern Observatory (Germany); Y. Durand, P. Gitton, B. Gilli, European Southern Observatory (Chile); A. Glindemann, European Southern Observatory (Germany); S. Guniat, S. Guisard, N. Haddad, G. Hudepohl, European Southern Observatory (Chile); C. Hummel, European Southern Observatory (Germany); N. Jesuran, A. Kaufer, European Southern Observatory (Chile); B. Koehler, European Southern Observatory (Germany); J. Le Bouquin, European Southern Observatory (Chile); S. Lévêque, European Southern Observatory (Germany); C. Lidman, P. Mardones, European Southern Observatory (Chile); S. Ménardi, European Southern Observatory (Germany); S. Morel, European Southern Observatory (Chile); I. Percheron, M. Petr-Gotzens, T. Phan Duc, F. Puech, European Southern Observatory (Germany); A. Ramirez, F. Rantakyrö, European Southern Observatory (Chile); A. Richichi, European Southern Observatory (Germany); T. Rivinius, European Southern Observatory (Chile); J. Sahlmann, European Southern Observatory (Germany); S. Sandrock, European Southern Observatory (Chile); M. Schöller, European Southern Observatory (Germany); N. Schuhler, F. Somboli, S. Stefl, M. Tapia, European Southern Observatory (Chile); G. Van Belle, A. Wallander, European Southern Observatory (Germany); S. Wehner, European Southern Observatory (Chile); M. Wittkowski, European Southern Observatory (Germany)
- 7013 0D **Interferometry at mid-infrared wavelengths: the ISI system (Invited Paper)** [7013-12]  
 C. H. Townes, E. H. Wishnow, Univ. of California, Berkeley (United States)

---

## SYSTEMS

- 7013 0E **Polarization fidelity in an optical interferometer** [7013-13]  
 D. F. Buscher, F. Baron, C. A. Haniff, Univ. of Cambridge, Cavendish Lab. (United Kingdom)
- 7013 0F **Polar-interferometry: what can be learnt from the IOTA/IONIC experiment** [7013-14]  
 J.-B. Le Bouquin, European Southern Observatory (Chile); K. Rousselet-Perraut, J.-P. Berger, E. Herwats, M. Benisty, O. Absil, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); D. Defrere, Univ. de Liege (Belgium); J. Monnier, Univ. of Michigan (United States); W. Traub, Jet Propulsion Lab. (United States)
- 7013 0H **Adaptive vibration cancellation on large telescopes for stellar interferometry** [7013-16]  
 N. Di Lieto, P. Haguenauer, European Southern Observatory (Germany); J. Sahlmann, European Southern Observatory (Germany) and Observatoire de Genève (Switzerland); G. Vasishth, Jet Propulsion Lab. (United States) and European Southern Observatory (Germany)
- 7013 0I **Fringe detection laser metrology for differential astrometric stellar interferometers** [7013-17]  
 S. Rabien, S. Gillessen, J. Ziegleder, M. Thiel, A. Gräter, M. Haug, F. Eisenhauer, Max-Planck-Institut für extraterrestrische Physik (Germany); G. Perrin, LESIA, Observatoire de Paris Meudon (France); W. Brandner, Max-Planck-Institut für Astronomie (Germany); C. Straubmeier, I. Physikalisches Institut, Univ. zu Köln (Germany)
- 7013 0J **Status of the VLTI complementary characterization** [7013-18]  
 P. Gitton, P. Haguenauer, European Southern Observatory (Chile)
- 7013 0K **Can laser self-focusing in air replace interferometer siderostats and delay lines?** [7013-194]  
 E. N. Ribak, Technion, Israel Institute of Technology (Israel)

---

## SUBSYSTEMS

---

- 7013 0N **Design of the unit telescopes of the MROI** [7013-22]  
O. Pirnay, P. Glocser, E. Gabriel, V. Moreau, F. Graillet, C. Delrez, Advanced Mechanical and Optical Systems (Belgium)
- 7013 0O **The long-stroke MROI vacuum delay lines: from concept to production** [7013-23]  
C. A. Haniff, R. C. Boysen, D. F. Buscher, M. Fisher, E. B. Seneta, X. Sun, D. M. A. Wilson, J. S. Young, Univ. of Cambridge, Cavendish Lab. (United Kingdom); F. Santoro, Magdalena Ridge Observatory, New Mexico Tech (United States)
- 7013 0P **The ESPRI Project: differential delay lines for PRIMA** [7013-24]  
F. Pepe, D. Queloz, Observatoire Astronomique de l'Univ. de Genève (Switzerland); Th. Henning, Max Planck Institute for Astronomy (Germany); A. Quirrenbach, Landessternwarte Königstuhl (Germany); F. Delplancke, L. Andolfato, European Southern Observatory (Germany); H. Baumeister, P. Bizenberger, Max Planck Institute for Astronomy (Germany); H. Bleuler, Ecole Polytechnique Fédérale, Lab. de Systèmes Robotiques (Switzerland); B. Chazelas, Observatoire Astronomique de l'Univ. de Genève (Switzerland); F. Dérie, L. Di Lieto, T. P. Duc, European Southern Observatory (Germany); O. Duvanel, Ecole d'ingénieur ARC (Switzerland); M. Fleury, Observatoire Astronomique de l'Univ. de Genève (Switzerland); D. Gillet, Ecole Polytechnique Fédérale, Lab. d'Automatique (Switzerland); U. Graser, Max Planck Institute for Astronomy (Germany); F. Koch, European Southern Observatory (Germany); R. Launhardt, Max Planck Institute for Astronomy (Germany); C. Maire, D. Mégevand, Observatoire Astronomique de l'Univ. de Genève (Switzerland); Y. Michelod, Ecole Polytechnique Fédérale, Lab. d'Astrophysique (Switzerland); J.-M. Moresmau, European Southern Observatory (Germany); P. Müllhaupt, Ecole Polytechnique Fédérale, Lab. d'Astrophysique (Switzerland); V. Naranjo, Max Planck Institute for Astronomy (Germany); L. Sache, Ecole Polytechnique Fédérale, Lab. de Systèmes Robotiques (Switzerland); Y. Salvadé, Ecole d'ingénieur ARC (Switzerland); G. Simond, Observatoire Astronomique de l'Univ. de Genève (Switzerland); D. Sosnowska, Ecole Polytechnique Fédérale, Lab. d'Astrophysique (Switzerland); K. Wagner, Max Planck Institute for Astronomy (Germany); L. Zago, Ctr. Suisse d'Electronique et Microtechnique (Switzerland)

---

## THESES

---

- 7013 0Q **First science with the Keck Interferometer Nuller: high spatial resolution N-band observations of the recurrent nova RS Ophiuchi** [7013-25]  
R. K. Barry, NASA Goddard Space Flight Ctr. (United States) and The Johns Hopkins Univ. (United States); W. C. Danchi, NASA Goddard Space Flight Ctr. (United States); W. Traub, Jet Propulsion Lab. (United States); M. Kuchner, J. P. Wisniewski, NASA Goddard Space Flight Ctr. (United States); R. Akeson, M. Colavita, California Institute of Technology, Michelson Science Ctr. (United States); M. A. Greenhouse, NASA Goddard Space Flight Ctr. (United States); C. Koresko, California Institute of Technology, Michelson Science Ctr. (United States); B. Mennesson, E. Serabyn, Jet Propulsion Lab. (United States); J. L. Sokoloski, Columbia Univ. (United States)
- 7013 0R **Infrared spectro-interferometry of YSOs (Best PhD in Interferometry Award)** [7013-26]  
S. Kraus, K.-H. Hofmann, K. Ohnaka, T. Preibisch, G. Weigelt, Max-Planck-Institut für Radioastronomie (Germany)

- 7013 0T **Wolf-Rayet stars probed by AMBER/VLTI** [7013-28]  
F. Millour, Max-Planck Institut for Radioastronomy (Germany); O. Chesneau, Fizeau Lab., Nice Univ. (France); T. Driebe, Max-Planck Institut for Radioastronomy (Germany); R. G. Petrov, D. Bonneau, Fizeau Lab., Nice Univ. (France); L. Dessart, Steward Observatory (United States); K.-H. Hofmann, G. Weigelt, Max-Planck Institut for Radioastronomy (Germany)
- 7013 0U **The gas-dust transition region in young stellar objects: a sub-milli-arcsecond view through the eyes of CHARA** [7013-29]  
A. Tannirkulam, J. D. Monnier, Univ. of Michigan (United States); R. Millan-Gabet, Michelson Science Ctr. (United States); T. J. Harries, Univ. of Exeter (United Kingdom); E. Pedretti, Univ. of St. Andrews (United Kingdom); Z. Zhu, Univ. of Michigan (United States); T. A. ten Brummelaar, CHARA, Georgia State Univ. (United States)

---

#### NEW PROJECTS

---

- 7013 0X **Magdalena Ridge Observatory Interferometer: progress toward first light (Invited Paper)** [7013-31]  
M. J. Creech-Eakman, V. Romero, D. Westpfahl, C. Cormier, Magdalena Ridge Observatory, New Mexico Institute of Mining and Technology (United States); C. Haniff, D. Buscher, Cavendish Lab., Univ. of Cambridge (United Kingdom); E. Bakker, L. Berger, E. Block, T. Coleman, P. Festler, C. Jurgenson, R. King, D. Klinglesmith, K. McCord, A. Olivares, C. Parameswariah, I. Payne, T. Paz, E. Ryan, C. Salcido, F. Santoro, R. Selina, A. Shtromberg, J. Steenson, Magdalena Ridge Observatory, New Mexico Institute of Mining and Technology (United States); F. Baron, R. Boysen, J. Coyne, M. Fisher, E. Seneta, X. Sun, N. Thureau, D. Wilson, J. Young, Cavendish Lab., Univ. of Cambridge (United Kingdom)
- 7013 10 **Interest of a double field interferometer at Dome C** [7013-34]  
B. Valat, F. X. Schmider, B. Lopez, O. Michel, CNRS H. FIZEAU, UNS, OCA (France)

---

#### IO AND FIBERS

---

- 7013 13 **Silver halide single mode fibers for modal filtering in the middle infrared** [7013-37]  
T. Lewi, Tel Aviv Univ. (Israel); A. Ksendzov, S. Martin, O. Lay, Jet Propulsion Lab. (United States); S. Shalem, A. Tsun, A. Zayats, A. Katzir, Tel Aviv Univ. (Israel); P. Lawson, Jet Propulsion Lab. (United States)
- 7013 14 **Integrated optics for nulling interferometry in the thermal infrared** [7013-38]  
M. Barillot, Thales Alenia Space (France); E. Barthelemy, Institut Charles Gerhardt (France); J.-E. Broquin, Institut de Microélectronique, Electromagnétisme et Photonique, Minatec, INPG (France); J. Frayret, Institut Charles Gerhardt (France); J. Grelin, Institut de Microélectronique, Electromagnétisme et Photonique, Minatec, INPG (France); G. Hawkins, Univ. of Reading (United Kingdom); V. Kirschner, European Space Agency (Netherlands); G. Parent, Lab. d'Energétique et de Mécanique Théorique et Appliquée (France); A. Pradel, Institut Charles Gerhardt (France); E. Rossi, Thales Alenia Space (France); C. Vigreux, Institut Charles Gerhardt (France); S. Zhang, X. Zhang, Univ. de Rennes I (France)
- 7013 15 **Full integrated beam combiner instrument based on SWIFTS concept** [7013-39]  
P. Kern, E. Le Coarer, Lab. d'Astrophysique de Grenoble, Univ. Joseph Fourier, CNRS (France); P. Benech, Institut de Microélectronique d'Electromagnétisme et de Photonique, INPG-UJF-CNRS (France)

- 7013 16 **Characterization of integrated optics components for the second generation of VLTI instruments** [7013-40]  
 S. Lacour, L. Jocou, T. Moulin, LAOG (France); P. R. Labeye, CEA-LETI (France); M. Benisty, J.-P. Berger, A. Delboulb  , LAOG (France); X. Haubois, LESIA, Observatoire de Paris, Meudon (France); E. Herwats, P. Y. Kern, F. Malbet, K. Rousselet-Perraut, LAOG (France); G. Perrin, LESIA, Observatoire de Paris, Meudon (France)
- 7013 17 **Rapid prototyping of integrated sol-gel devices for astronomical interferometry** [7013-41]  
 A. Ghasempour, INESC Porto (Portugal), Univ. do Porto (Portugal), Ctr. de Astrof  sica, Univ. do Porto (Portugal), and XLIM, IRO (France); D. Alexandre, INESC Porto (Portugal), Univ. do Porto (Portugal), and Univ. de Tr  s-os-Montes e Alto Douro (Portugal); C. Brites, INESC Porto (Portugal); P. J. Moreira, INESC Porto (Portugal) and Ctr. de Astrof  sica, Univ. do Porto (Portugal); F. Reynaud, XLIM, IRO (France); P. V. S. Marques, INESC Porto (Portugal) and Univ. do Porto (Portugal); A. M. P. Leite, Univ. do Porto (Portugal); P. J. V. Garcia, Ctr. de Astrof  sica, Univ. do Porto (Portugal) and Univ. do Porto (Portugal)

---

#### **FRINGE TRACKING**

---

- 7013 18 **Fringe tracking at VLTI: status report** [7013-42]  
 J.-B. Le Bouquin, European Southern Observatory (Chile); R. Abuter, B. Bauvir, H. Bonnet, European Southern Observatory (Germany); P. Haguenauer, European Southern Observatory (Chile); N. di Lieto, S. Menardi, European Southern Observatory (Germany); S. Morel, F. Rantakyr  , European Southern Observatory (Chile); M. Schoeller, A. Wallander, European Southern Observatory (Germany); S. Wehner, European Southern Observatory (Chile)
- 7013 19 **CHARA Michigan phase-tracker (CHAMP): a preliminary performance report** [7013-43]  
 D. H. Berger, J. D. Monnier, Univ. of Michigan (United States); R. Millan-Gabet, Michelson Science Ctr., California Institute of Technology (United States); T. A. ten Brummelaar, The CHARA Array, Mount Wilson Observatory (United States); M. Anderson, J. L. Blum, T. Blasius, Univ. of Michigan (United States); E. Pedretti, N. Thureau, Univ. of St. Andrews (United Kingdom)
- 7013 1A **Results from the VLTI-PRIMA fringe tracking testbed** [7013-44]  
 J. Sahlmann, European Southern Observatory (Germany) and Observatoire de Gen  ve (Switzerland); R. Abuter, N. Di Lieto, S. M  nardi, F. Delplancke, European Southern Observatory (Germany); H. Bartko, F. Eisenhauer, Max-Planck-Institut f  r Extraterrestrische Physik (Germany); S. L  v  que, European Southern Observatory (Germany); O. Pfuhl, Max-Planck-Institut f  r Extraterrestrische Physik (Germany); N. Schuhler, G. van Belle, European Southern Observatory (Germany); G. Vasisht, European Southern Observatory (Germany) and Jet Propulsion Lab. (United States)
- 7013 1B **Fringe tracking optimization with 4 beams: application to GRAVITY** [7013-45]  
 K. Houairi, Office National d'Etudes et de Recherche A  rospatiales (France), Ctr. National d'  tudes Spatiales (France), and PHASE, ONERA, Observatoire de Paris, CNRS and Univ. Denis Diderot Paris 7 (France); F. Cassaing, Office National d'Etudes et de Recherche A  rospatiales (France) and PHASE, ONERA, Observatoire de Paris, CNRS and Univ. Denis Diderot Paris 7 (France); G. Perrin, LESIA, Observatoire de Paris (France) and PHASE, ONERA, Observatoire de Paris, CNRS and Univ. Denis Diderot Paris 7 (France); F. Eisenhauer, Max-Planck-Institut f  r extraterrestrische Physik (Germany); W. Brandner, Max-Planck-Institut f  r Astronomie (Germany); C. Straubmeier, I. Physikalisches Institut, Univ. of Cologne (Germany); S. Gillessen, Max-Planck-Institut f  r extraterrestrische Physik (Germany)

7013 1C **Fringe tracking at the MROI** [7013-46]  
C. A. Jurgenson, F. G. Santoro, New Mexico Institute of Mining and Technology, Magdalena Ridge Observatory (United States); F. Baron, Univ. of Cambridge, Cavendish Lab. (United Kingdom); K. McCord, E. K. Block, New Mexico Institute of Mining and Technology, Magdalena Ridge Observatory (United States); D. F. Buscher, C. A. Haniff, J. S. Young, Univ. of Cambridge, Cavendish Lab. (United Kingdom); T. A. Coleman, M. J. Creech-Eakman, New Mexico Institute of Mining and Technology, Magdalena Ridge Observatory (United States)

7013 1D **Fringe tracking and spatial filtering: phase jumps and dropouts** [7013-48]  
D. F. Buscher, J. S. Young, F. Baron, C. A. Haniff, Cavendish Lab., Univ. of Cambridge (United Kingdom)

---

## PHASES

---

7013 1E **Practical coherent integration with the NPOI** [7013-49]  
A. M. Jorgensen, New Mexico Institute of Mining and Technology (United States); D. Mozurkewich, Seabrook Engineering (United States); H. Schmitt, Naval Research Lab. (United States) and Interferometrics, Inc. (United States); R. Hindsley, J. T. Armstrong, T. A. Pauls, Naval Research Lab. (United States); D. Hutter, Naval Observatory Flagstaff Station (United States)

7013 1F **Phase referencing in optical interferometry** [7013-50]  
M. E. Filho, Ctr. de Astrofisica, Univ. do Porto (Portugal); P. Garcia, Ctr. de Astrofisica, Univ. do Porto (Portugal) and Univ. do Porto (Portugal); G. Duvert, Lab. d'Astrophysique, Observatoire de Grenoble (France); G. Duchene, Univ. of California, Berkeley (United States); E. Thiebaut, Observatoire de Lyon (France); J. Young, Cavendish Lab. (United Kingdom); O. Absil, J.-P. Berger, Univ. Joseph Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); T. Beckert, S. Hoenig, D. Schertl, G. Weigelt, Max-Planck Institute for Radioastronomy (Germany); L. Testi, E. Tatuli, INAF, Osservatorio di Astrofisica di Arcetri (Italy); V. Borkowski, M. de Becker, J. Surdej, Institute of Astrophysics and Geophysics (Belgium); B. Aringer, J. Hron, T. Lebzelter, Institute of Astrophysics, Univ. of Wien (Austria); A. Chiavassa, R. Corradi, Astrophysique du Languedoc (France); T. Harries, Univ. of Exeter (United Kingdom)

7013 1G **AMBER closure and differential phases: accuracy and calibration with a beam commutation** [7013-51]  
F. Millour, Max-Planck Institut for Radioastronomy (Germany); R. G. Petrov, M. Vannier, Fizeau Lab., Nice Univ. (France); S. Kraus, Max-Planck Institut for Radioastronomy (Germany)

---

## IMAGING

---

7013 1H **Solving the imaging problem with coherently integrated multiwavelength data** [7013-52]  
H. R. Schmitt, Naval Research Lab. (United States) and Interferometrics, Inc. (United States); T. A. Pauls, J. T. Armstrong, Naval Research Lab. (United States); D. Mozurkewich, Seabrook Engineering (United States); A. M. Jorgensen, New Mexico Institute of Mining and Technology (United States); R. B. Hindsley, Naval Research Lab. (United States); C. Tycner, Central Michigan Univ. (United States); R. T. Zavala, J. A. Benson, D. J. Hutter, U.S. Naval Observatory (United States)

7013 1I **MIRA: an effective imaging algorithm for optical interferometry** [7013-53]  
E. Thiébaut, Ctr. de Recherche Astrophysique de Lyon, CNRS (France)

- 7013 1J **LITpro: a model fitting software for optical interferometry** [7013-54]  
I. Tallon-Bosc, M. Tallon, E. Thiébaut, C. Béchet, Univ. de Lyon (France), Univ. de Lyon 1, Observatoire de Lyon (France), CNRS-Ctr. de Recherche Astrophysique de Lyon (France), and Ecole Normale Supérieure de Lyon (France); G. Mella, S. Lafraisse, Lab. d'Astrophysique de Grenoble, CNRS (France); O. Chesneau, A. Domiciano de Souza, Univ. Nice Sophia Antipolis, CNRS, Observatoire de la Côte d'Azur (France); G. Duvert, Lab. d'Astrophysique de Grenoble, CNRS (France); D. Mourard, R. Petrov, M. Vannier, Univ. Nice Sophia Antipolis, CNRS, Observatoire de la Côte d'Azur (France)
- 7013 1K **Exoplanet studies with CHARA-MIRC** [7013-55]  
M. Zhao, J. D. Monnier, Univ. of Michigan (United States); T. ten Brummelaar, Georgia State Univ. (United States); E. Pedretti, N. D. Thureau, Univ. of St. Andrews (United Kingdom)
- 7013 1L **Imaging reconstruction for infrared interferometry: first images of YSOs environment** [7013-56]  
S. Renard, F. Malbet, Lab. d'Astrophysique de Grenoble, Univ. Joseph Fourier, CNRS (France); E. Thiébaut, Ctr. de Recherche Astrophysique de Lyon, Observatoire de Lyon, Univ. Claude Bernard (France); J.-P. Berger, Lab. d'Astrophysique de Grenoble, Univ. Joseph Fourier, CNRS (France)
- 7013 1M **Wide-field imaging interferometry testbed (WIIT): image construction algorithms** [7013-57]  
R. G. Lyon, S. A. Rinehart, D. T. Leisawitz, N. Memarsadeghi, NASA Goddard Space Flight Ctr. (United States)
- 7013 1N **2008 imaging beauty contest** [7013-58]  
W. Cotton, National Radio Astronomy Observatory (United States); J. Monnier, Univ. of Michigan (United States); F. Baron, Cavendish Lab. (United Kingdom); K.-H. Hofmann, S. Kraus, G. Weigelt, Max-Planck-Institut für Radioastronomie (Germany); S. Rengaswamy, Leiden Observatory (Netherlands); E. Thiébaut, CRAL, Observatoire de Lyon (France); P. Lawson, Jet Propulsion Lab. (United States); W. Jaffe, Leiden Observatory (Netherlands); C. Hummel, European Southern Observatory (Chile); T. Pauls, H. Schmitt, Naval Research Lab. (United States); P. Tuthill, Sydney Univ. (Australia); J. Young, Cavendish Lab. (United Kingdom)

---

## ATMOSPHERE

---

- 7013 1P **LuSci: a lunar scintillometer to study ground layer turbulence** [7013-60]  
J. Rajagopal, A. Tokovinin, E. Bustos, NOAO/CTIO (Chile); J. Sebag, NOAO (United States)

---

## NULLING

---

- 7013 1Q **Compensation and optimization of dispersion in nulling interferometry** [7013-61]  
J. F. P. Spronck, J. W. N. Los, S. F. Pereira, Delft Univ. of Technology (Netherlands)
- 7013 1R **Stabilising a nulling interferometer using optical path difference dithering: an update** [7013-173]  
P. Gabor, Institut d'Astrophysique Spatiale, Univ. Paris-Sud II (France); B. Chazelas, Observatoire de Genève (Switzerland); P. A. Schuller, Institut d'Astrophysique Spatiale, Univ. Paris-Sud II (France); F. Brachet, Ctr. National d'Etudes Spatiales (France); M. Ollivier, M. Decauvin, A. Labèque, P. Duret, S. Jacquinod, A. Léger, Institut d'Astrophysique Spatiale, Univ. Paris-Sud II (France)

- 7013 1S **Laboratory characterization of the chessboard achromatic phase shifter** [7013-63]  
D. Rouan, LESIA, Observatoire de Paris, CNRS, Univ. Paris Diderot (France); D. Pelat, LUTH, Observatoire de Paris, CNRS, Univ. Paris Diderot (France); N. Meillard, J.-M. Reess, LESIA, Observatoire de Paris, CNRS, Univ. Paris Diderot (France); F. Chemla, GEPI, Observatoire de Paris, CNRS, Univ. Paris Diderot (France); P. Riaud, LESIA, Observatoire de Paris, CNRS, Univ. Paris Diderot (France)
- 7013 1T **PERSEE: description of a new concept for nulling interferometry recombination and OPD measurement** [7013-64]  
S. Jacquinod, Institut d'Astrophysique Spatiale, Univ. Paris II (France); F. Cassaing, Office National d'Etudes et de Recherches Aérospatiales, DOTA (France); J.-M. Le Duigou, Ctr. National d'Etudes Spatiales (France); M. Barillot, Thales Alenia Space (France); M. Olivier, Institut d'Astrophysique Spatiale, Univ. Paris II (France); K. Houairi, Office National d'Etudes et de Recherches Aérospatiales, DOTA (France); F. Lemarquis, Institut Fresnel, Univ. Aix-Marseille (France); J.-P. Amans, Observatoire de Paris à Meudon, GEPI (France)
- 7013 1V **Progress in deep broadband interferometric nulling with the adaptive nuller** [7013-66]  
R. D. Peters, O. P. Lay, A. Hirai, M. Jeganathan, Jet Propulsion Lab. (United States)

## Part Two

- 7013 1W **PERSEE, the dynamic nulling demonstrator: recent progress on the cophasing system** [7013-67]  
K. Houairi, Office National d'Etudes et de Recherche Aérospatiales (France), Ctr. National d'Etudes Spatiales (France), and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); F. Cassaing, Office National d'Etudes et de Recherche Aérospatiales (France) and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); J. M. Le Duigou, Ctr. National d'Etudes Spatiales (France); B. Sorrente, Office National d'Etudes et de Recherche Aérospatiales (France) and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); S. Jacquinod, Institut d'Astrophysique Spatiale, Ctr. Univ. d'Orsay (France); J. P. Amans, GEPI, Observatoire de Paris (France) and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France)
- 7013 1X **Fine art of computing nulling interferometer maps** [7013-68]  
F. Hénault, Observatoire de la Côte d'Azur, Univ. de Nice Sophia Antipolis, CNRS (France)
- 7013 1Y **The development and applications of a ground-based fiber nulling coronagraph** [7013-69]  
S. Martin, E. Serabyn, K. Liewer, F. Loya, B. Mennesson, Jet Propulsion Lab. (United States); C. Hanot, AEOS, Univ. of Liege (Belgium); D. Mawet, Jet Propulsion Lab. (United States)
- 7013 1Z **Persee: a nulling demonstrator with real-time correction of external disturbances** [7013-70]  
F. Cassaing, ONERA (France) and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); J. M. Le Duigou, Ctr. National d'Etudes Spatiales (France); J. P. Amans, GEPI, Observatoire de Paris (France) and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); M. Barillot, Thales Alenia Space (France); T. Buey, LESIA, Observatoire de Paris (France) and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); F. Henault, Observatoire de la Côte d'Azur (France); K. Houairi, ONERA (France), Ctr. National d'Etudes Spatiales (France), and PHASE, ONERA, Observatoire de Paris, CNRS, and Denis Diderot Paris 7 (France); S. Jacquinod, Institut d'Astrophysique Spatiale, Ctr. Univ d'Orsay (France) and Ctr. National d'Etudes Spatiales (France); P. Laporte, GEPI, Observatoire de Paris (France) and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); A. Marcotto, Observatoire de la Côte d'Azur (France); L. Pirson, Thales Alenia Space (France); J. M. Reess, LESIA, Observatoire de Paris (France) and PHASE, ONERA,

Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); B. Sorrente, ONERA (France) and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); G. Rousset, V. Coudé du Foresto, LESIA, Observatoire de Paris (France) and PHASE, ONERA, Observatoire de Paris, CNRS, and Univ. Denis Diderot Paris 7 (France); M. Ollivier, Institut d'Astrophysique Spatiale, Ctr. Univ. d'Orsay (France)

- 7013 20 **Exoplanet exploration program planet detection test-bed: latest results of planet light detection in the presence of starlight** [7013-71]  
A. J. Booth, S. R. Martin, F. Loya, Jet Propulsion Lab. (United States)
- 7013 21 **Earth-like planets: science performance predictions for future nulling interferometry missions** [7013-72]  
D. Defrère, Institut d'Astrophysique et de Géophysique, Univ. de Liège (Belgium); O. Lay, Jet Propulsion Lab. (United States); R. den Hartog, ESA/ESTEC (Netherlands); O. Absil, LAOG, CNRS, Univ. Joseph Fourier (France)

---

#### SCIENCE IV

---

- 7013 22 **First spectro-interferometry on galactic center sources in the infrared: results and science prospects at the sensitivity limit of current larger aperture arrays** [7013-73]  
J.-U. Pott, W. M. Keck Observatory (United States) and Univ. of California, Los Angeles (United States); J. Woillez, P. L. Wizinowich, W. M. Keck Observatory (United States); A. Eckart, I. Physikalisches Institut (Germany); A. Glindemann, European Southern Observatory (Germany); A. M. Ghez, Univ. of California, Los Angeles (United States); J. R. Graham, Univ. of California, Berkeley (United States)

---

#### INSTRUMENTS

---

- 7013 23 **VEGA: a new visible spectrograph and polarimeter on the CHARA Array** [7013-74]  
D. Mourard, OCA/UNS/CNRS FIZEAU (France); K. Perraut, UJF/CNRS LAOG BP53 (France); D. Bonneau, J. M. Clauze, Ph. Stee, OCA/UNS/CNRS FIZEAU (France); I. Tallon-Bosc, UCBL/CNRS CRAL 9 (France); P. Kervella, Observatoire de Paris LESIA (France); Y. Hughes, A. Marcotto, A. Blazit, O. Chesneau, A. Domiciano de Souza, OCA/UNS/CNRS FIZEAU (France); R. Foy, UCBL/CNRS CRAL 9 (France); F. Hénault, D. Mattei, G. Merlin, A. Roussel, OCA/UNS/CNRS FIZEAU (France); M. Tallon, E. Thiebaut, UCBL/CNRS CRAL 9 (France); H. McAlister, Georgia State Univ. (United States) and The CHARA Array, Mount Wilson Observatory (United States); T. ten Brummelaar, J. Sturmann, L. Sturmann, N. Turner, C. Farrington, P. J. Goldfinger, The CHARA Array, Mount Wilson Observatory (United States)
- 7013 24 **Sensitive visible interferometry with PAVO** [7013-75]  
M. J. Ireland, California Institute of Technology (United States) and Univ. of Sydney (Australia); A. Mérand, Ctr. for High Resolution Astronomy, Georgia State Univ. (United States) and European Southern Observatory (Chile); T. A. ten Brummelaar, Ctr. for High Resolution Astronomy, Georgia State Univ. (United States); P. G. Tuthill, Univ. of Sydney (Australia); G. H. Schaefer, N. H. Turner, J. Sturmann, L. Sturmann, H. A. McAlister, Ctr. for High Resolution Astronomy, Georgia State Univ. (United States)
- 7013 25 **A high-sensitivity near-infrared science combiner for MROI** [7013-76]  
F. Baron, Univ. of Cambridge, Cavendish Lab. (United Kingdom); E. Block, New Mexico Institute of Mining and Technology (United States); D. F. Buscher, J. Coyne, Univ. of Cambridge, Cavendish Lab. (United Kingdom); M. J. Creech-Eakman, New Mexico

- Institute of Mining and Technology (United States); C. A. Haniff, Univ. of Cambridge, Cavendish Lab. (United Kingdom); C. A. Jurgenson, New Mexico Institute of Mining and Technology (United States); J. S. Young, Univ. of Cambridge, Cavendish Lab. (United Kingdom)
- 7013 26 **LINC-NIRVANA: the Fizeau interferometer for the Large Binocular Telescope** [7013-77]  
T. M. Herbst, Max Planck Institute for Astronomy (Germany); R. Ragazzoni, Vicolo dell'Osservatorio 5 (Italy); A. Eckart, I Physikalisches Institut, Univ. of Cologne (Germany); G. Weigelt, Max Planck Institute for Radio Astronomy (Germany)
- 7013 27 **The LINC-NIRVANA fringe and flexure tracking system** [7013-78]  
T. Bertram, A. Eckart, B. Lindhorst, S. Rost, C. Straubmeier, E. Tremou, Y. Wang, I. Wank, G. Witzel, I. Physics Institute, Univ. of Cologne (Germany); U. Beckmann, Max Planck Institute for Radioastronomy (Germany); M. Brix, S. Egner, T. Herbst, Max Planck Institute for Astronomy (Germany)
- 7013 28 **Status of the LBT interferometer** [7013-79]  
P. M. Hinz, T. Bippert-Plymate, A. Breuninger, T. Connors, B. Duffy, Steward Observatory (United States); S. Esposito, Osservatorio Astrofisico di Arcetri (Italy); W. Hoffmann, J. Kim, J. Kraus, T. McMahon, M. Montoya, R. Nash, O. Durney, E. Solheid, Steward Observatory (United States); A. Tozzi, Osservatorio Astrofisico di Arcetri (Italy); V. Vaitheswaran, Steward Observatory (United States)
- 7013 29 **VSI: the VLTI spectro-imager** [7013-80]  
F. Malbet, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France); D. Buscher, Cavendish Lab., Univ. of Cambridge (United Kingdom); G. Weigelt, Max-Planck Institute for Radioastronomy (Germany); P. Garcia, Univ. do Porto (Portugal); M. Gai, INAF-Osservatorio Astronomico di Torino (Italy); D. Lorenzetti, INAF-Osservatorio Astronomico di Roma (Italy); J. Surdej, Institute of Astrophysics and Geophysics (Belgium); J. Hron, Univ. Wien (Austria); R. Neuhäuser, Astrophysical Institute and Univ. Observatory (Germany); P. Kern, L. Jocou, J.-P. Berger, O. Absil, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France); U. Beckmann, Max-Planck Institute for Radioastronomy (Germany); L. Corcione, INAF-Osservatorio Astronomico di Torino (Italy); G. Duvert, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France) and Jean-Marie Mariotti Ctr., CNRS (France); M. Filho, Univ. do Porto (Portugal); P. Labeye, CEA-LETI (France); E. Le Coarer, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France); G. Li Causi, INAF-Istituto Nazionale di Astrofisica (Italy); J. Lima, Univ. de Lisboa (Portugal); K. Perraut, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France); E. Tatulli, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France), INAF/Osservatorio di Astrofisico di Arcetri (Italy), and Jean-Marie Mariotti Ctr., CNRS (France); E. Thiébaut, Ctr. de Recherche Astrophysique de Lyon (France); J. Young, Cavendish Lab., Univ. of Cambridge (United Kingdom); G. Zins, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France); A. Amorim, Univ. de Lisboa (Portugal); B. Aringer, Institute of Astrophysics, Univ. of Wien (Austria); T. Beckert, Max-Planck Institute for Radioastronomy (Germany); M. Benisty, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France); X. Bonfils, Univ. de Lisboa (Portugal); A. Cabral, Instituto Nacional de Engenharia, Tecnologia e Inovação (Portugal); A. Chelli, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France) and Jean-Marie Mariotti Ctr., CNRS (France); O. Chesneau, Observatoire de la Côte d'Azur (France); A. Chiavassa, Univ. de Montpellier II (France); R. Corradi, Instituto de Astrofísica de Canarias (Spain); M. De Becker, Institute of Astrophysics and Geophysics (Belgium); A. Delboulbé, G. Duchêne, T. Forveille, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France); C. Haniff, Cavendish Lab., Univ. of Cambridge (United Kingdom); E. Herwats, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France) and Institute of Astrophysics and Geophysics (Belgium);

K.-H. Hofmann, Max-Planck Institute for Radioastronomy (Germany); J.-B. Le Bouquin, European Southern Observatory (Chile); S. Ligori, INAF-Osservatorio Astronomico di Torino (Italy); D. Loreggia, INAF-Osservatorio Astronomico di Roma (Italy); A. Marconi, INAF/Osservatorio di Astrofisico di Arcetri (Italy); A. Moitinho, Univ. de Lisboa (Portugal); B. Nisini, INAF-Osservatorio Astronomico di Roma (Italy); P.-O. Petrucci, Lab. d'Astrophysique de l'Observatoire de Grenoble, Univ. J. Fourier, CNRS (France); J. Rebordao, Instituto Nacional de Engenharia, Tecnologia e Inovação (Portugal); R. Speziali, INAF-Osservatorio Astronomico di Roma (Italy); L. Testi, INAF/Osservatorio di Astrofisica di Arcetri (Italy) and European Southern Observatory Headquarters (Germany); F. Vitali, INAF-Osservatorio Astronomico di Roma (Italy)

7013 2A

**GRAVITY: getting to the event horizon of Sgr A\*** [7013-81]

F. Eisenhauer, Max-Planck-Institut für extraterrestrische Physik (Germany); G. Perrin, LESIA, Observatoire de Paris Meudon (France); W. Brandner, Max-Planck-Institut für Astronomie (Germany); C. Straubmeier, I. Physikalisches Institut, Univ. zu Köln (Germany); A. Richichi, European Southern Observatory (Germany); S. Gillessen, Max-Planck-Institut für extraterrestrische Physik (Germany); J. P. Berger, Lab. d'Astrophysique, Observatoire de Grenoble (France); S. Hippler, Max-Planck-Institut für Astronomie (Germany); A. Eckart, I. Physikalisches Institut, Univ. zu Köln (Germany); M. Schöller, European Southern Observatory (Germany); S. Rabien, Max-Planck-Institut für extraterrestrische Physik (Germany); F. Cassaing, LESIA, Observatoire de Paris Meudon (France); R. Lenzen, Max-Planck-Institut für Astronomie (Germany); M. Thiel, Max-Planck-Institut für extraterrestrische Physik (Germany); Y. Clénet, LESIA, Observatoire de Paris Meudon (France); J. R. Ramos, Max-Planck-Institut für Astronomie (Germany); S. Kellner, Max-Planck-Institut für extraterrestrische Physik (Germany); P. Fédou, LESIA, Observatoire de Paris Meudon (France); H. Baumeister, Max-Planck-Institut für Astronomie (Germany); R. Hofmann, Max-Planck-Institut für extraterrestrische Physik (Germany); E. Gendron, LESIA, Observatoire de Paris Meudon (France); A. Boehm, Max-Planck-Institut für Astronomie (Germany); H. Bartko, Max-Planck-Institut für extraterrestrische Physik (Germany); X. Haubois, LESIA, Observatoire de Paris Meudon (France); R. Klein, Max-Planck-Institut für Astronomie (Germany); K. Dodds-Eden, Max-Planck-Institut für extraterrestrische Physik (Germany); K. Houairi, LESIA, Observatoire de Paris Meudon (France); F. Hormuth, Max-Planck-Institut für Astronomie (Germany); A. Gräter, Max-Planck-Institut für extraterrestrische Physik (Germany); L. Jocou, Lab. d'Astrophysique, Observatoire de Grenoble (France); V. Naranjo, Max-Planck-Institut für Astronomie (Germany); R. Genzel, Max-Planck-Institut für extraterrestrische Physik (Germany); P. Kervella, LESIA, Observatoire de Paris Meudon (France); T. Henning, Max-Planck-Institut für Astronomie (Germany); N. Hamaus, Max-Planck-Institut für extraterrestrische Physik (Germany); S. Lacour, Lab. d'Astrophysique, Observatoire de Grenoble (France); U. Neumann, Max-Planck-Institut für Astronomie (Germany); M. Haug, Max-Planck-Institut für extraterrestrische Physik (Germany); F. Malbet, Lab. d'Astrophysique, Observatoire de Grenoble (France); W. Laun, Max-Planck-Institut für Astronomie (Germany); J. Kolmeder, Max-Planck-Institut für extraterrestrische Physik (Germany); T. Paumard, LESIA, Observatoire de Paris Meudon (France); R.-R. Rohloff, Max-Planck-Institut für Astronomie (Germany); O. Pfuhl, Max-Planck-Institut für extraterrestrische Physik (Germany); K. Perraut, Lab. d'Astrophysique, Observatoire de Grenoble (France); J. Ziegler, Max-Planck-Institut für extraterrestrische Physik (Germany); D. Rouan, G. Rousset, LESIA, Observatoire de Paris Meudon (France)

7013 2B

**MATISSE: perspective of imaging in the mid-infrared at the VLTI** [7013-82]

B. Lopez, P. Antonelli, Observatoire de la Côte d'Azur (France); S. Wolf, Max Planck Institut für Astronomie (Germany); S. Lagarde, Observatoire de la Côte d'Azur (France); W. Jaffe, Leiden Observatory (Netherlands); R. Navarro, ASTRON (Netherlands); U. Graser, Max Planck Institut für Astronomie (Germany); R. Petrov, Lab. Univ. d'Astrophysique de Nice (France); G. Weigelt, Max Planck Institut für Radioastronomie (Germany); Y. Bresson, Observatoire de la Côte d'Azur (France); K. H. Hofmann, U. Beckman, Max Planck Institut für Radioastronomie (Germany); T. Henning, W. Laun, C. Leinert, Max Planck Institut für

Astronomie (Germany); S. Kraus, Max Planck Institut für Radioastronomie (Germany); S. Robbe-Dubois, F. Vakili, Lab. Univ. d'Astrophysique de Nice (France); A. Richichi, European Southern Observatory (Germany); P. Abraham, Konkoly Observatory (Hungary); J.-C. Augereau, Observatoire de Grenoble (France); J. Behrend, Max Planck Institut für Radioastronomie (Germany); P. Berio, N. Berruyer, O. Chesneau, J. M. Clauisse, Observatoire de la Côte d'Azur (France); C. Connot, Max Planck Institut für Radioastronomie (Germany); K. Demyk, Univ. de Lille (France); W. C. Danchi, NASA Goddard Space Flight Ctr. (United States); M. Dugué, Observatoire de la Côte d'Azur (France); G. Finger, European Southern Observatory (Germany); S. Flament, Observatoire de la Côte d'Azur (France); A. Glazeborg, H. Hannenburg, ASTRON (Netherlands); M. Heininger, Max Planck Institut für Radioastronomie (Germany); Y. Hugues, Observatoire de la Côte d'Azur (France); J. Hron, Vienna Univ. (Austria); S. Jankov, Lab. Univ. d'Astrophysique de Nice (France); F. Kerschbaum, Vienna Univ. (Austria); G. Kroes, ASTRON (Netherlands); H. Linz, Max Planck Institut für Astronomie (Germany); J.-L. Lizon, European Southern Observatory (Germany); P. Mathias, Observatoire de la Côte d'Azur (France); R. Mathar, Leiden Observatory (Netherlands); A. Matter, J. L. Menut, Observatoire de la Côte d'Azur (France); K. Meisenheimer, Max Planck Institut für Astronomie (Germany); F. Millour, Lab. Univ. d'Astrophysique de Nice (France); N. Nardetto, Max Planck Institut für Radioastronomie (Germany); U. Neumann, Max Planck Institut für Astronomie (Germany); E. Nussbaum, Max Planck Institut für Radioastronomie (Germany); A. Niedzielski, Torun Ctr. for Astronomy (Poland); L. Mosoni, Max Planck Institut für Astronomie (Germany) and Konkoly Observatory (Hungary); J. Olofsson, Observatoire de Grenoble (France); Y. Rabbia, Observatoire de la Côte d'Azur (France); T. Ratzka, Max Planck Institut für Astronomie (Germany); F. Rigal, ASTRON (Netherlands); A. Roussel, Observatoire de la Côte d'Azur (France); D. Schertl, Max Planck Institut für Radioastronomie (Germany); F.-X. Schmider, Lab. Univ. d'Astrophysique de Nice (France); B. Stecklum, Thüringer Landessternwarte Tautenburg (Germany); E. Thiebaut, Observatoire de Lyon (France); M. Vannier, B. Valat, Observatoire de la Côte d'Azur (France); K. Wagner, Max Planck Institut für Astronomie (Germany); L. B. F. M. Waters, Astronomical Institute Amsterdam (Netherlands)

---

## SINGLE APERTURES

---

- 7013 2D    **Beam combination with a large number of apertures** [7013-84]  
D. Mozurkewich, Seabrook Engineering (United States)

---

## NEW CONCEPTS

---

- 7013 2E    **Toward a revival of stellar intensity interferometry** [7013-85]  
S. LeBohec, Univ. of Utah (United States); C. Barbieri, Univ. of Padova (Italy); W. de Wit, Univ. of Leeds (United Kingdom); D. Dravins, Lund Observatory (Sweden); P. Feautrier, C. Foellmi, Lab. d'Astrophysique de Grenoble (France); A. Glindemann, European Southern Observatory (Germany); J. Hall, Fermilab (United States); J. Holder, Univ. of Delaware (United States); R. Holmes, Nutronics Inc. (United States); P. Kervella, LESIA, Observatoire de Paris-Meudon (France); D. Kieda, Univ. of Utah (United States); E. Le Coarer, Lab. d'Astrophysique de Grenoble (France); S. Lipson, Technion - Israel Institute of Technology (Israel); F. Malbet, Lab. de d'Astrophysique de Grenoble (France); S. Morel, European Southern Observatory (Germany); P. Nuñez, Univ. of Utah (United States); A. Ofir, Tel-Aviv Univ. (Israel); E. Ribak, Technion - Israel Institute of Technology (Israel); S. Saha, Indian Institute of Astrophysics II Block (India); M. Shoeller, European Southern Observatory (Germany); B. Zhilyaev, Main Astronomical Observatory (Ukraine); H. Zinnecker, Astrophysikalisches Institut Potsdam (Germany)

- 7013 2F **Novel spectral imaging method for the Fizeau interferometer** [7013-86]  
T. Matsuo, Jet Propulsion Lab. (United States) and Osaka Univ. (Japan); H. Shibai, Osaka Univ. (Japan); M. Kawada, Nagoya Univ. (Japan); M. Hattori, S. I. Ohta, Tohoku Univ. (Japan); H. Matsuo, National Observatory, Advanced Technology Ctr. (Japan)
- 7013 2G **Application of Michelson type bolometric interferometer to CMB B mode polarization observations** [7013-87]  
M. Hattori, Astronomical Institute Tohoku Univ. (Japan); I. S. Ohta, Kinki Univ. (Japan); Y. Chinone, Y. Luo, K. Koga, Astronomical Institute Tohoku Univ. (Japan)

---

## ASTROMETRY

---

- 7013 2H **Spectral calibration at the picometer level on SCDU (spectral calibration development unit)** [7013-88]  
R. T. Demers, X. An, A. Azizi, G. Brack, O. Lay, D. Ryan, J. Shen, G. Sun, H. Tang, C. Zhai, Jet Propulsion Lab. (United States)
- 7013 2I **The ESPRI project: astrometric exoplanet search with PRIMA** [7013-89]  
R. Launhardt, Max Planck Institute for Astronomy (Germany); D. Queloz, Observatoire Astronomique, l'Univ. de Genève (Switzerland); Th. Henning, Max Planck Institute for Astronomy (Germany); A. Quirrenbach, Landessternwarte Königstuhl (Germany); F. Delplancke, L. Andolfato; European Southern Observatory (Germany); L. Andolfato, European Southern Observatory (Germany); H. Baumeister, P. Bizenberger, Max Planck Institute for Astronomy (Germany); H. Bleuler, Ecole Polytechnique Fédérale (Switzerland); B. Chazelas, Observatoire Astronomique de l'Univ. de Genève (Switzerland); F. Dérie, D. Lieto, T. P. Duc, European Southern Observatory (Germany); O. Duvanel, Ecole d'ingénieur ARC (Switzerland); N. M. Elias II, Max Planck Institute for Astronomy (Germany) and Landessternwarte Königstuhl (Germany); M. Fluery, Observatoire Astronomique de l'Univ. de Genève (Switzerland); R. Geisler, Landessternwarte Königstuhl (Germany); D. Gillet, Ecole Polytechnique Fédérale (Switzerland); U. Graser, Max Planck Institute for Astronomy (Germany); F. Koch, European Southern Observatory (Germany); R. Köhler, Max Planck Institute for Astronomy (Germany) and Landessternwarte Königstuhl (Germany); C. Maire, D. Mégevand, Observatoire Astronomique de l'Univ. de Genève (Switzerland); Y. Michelod, Ecole Polytechnique Fédérale (Switzerland); J. Moresmau, European Southern Observatory (Germany); A. Müller, Max Planck Institute for Astronomy (Germany); P. Müllhaupt, Ecole Polytechnique Fédérale (Switzerland); V. Naranjo, Max Planck Institute for Astronomy (Germany); F. Pepe, Observatoire Astronomique, l'Univ. de Genève (Switzerland); S. Reffert, Landessternwarte Königstuhl (Germany); L. Sache, Ecole Polytechnique Fédérale (Switzerland); D. Ségransan, Observatoire Astronomique, l'Univ. de Genève (Switzerland); Y. Salvadé, Ecole d'ingénieur ARC (Switzerland); T. Schulze-Hartung, J. Setiawan, Max Planck Institute for Astronomy (Germany); G. Simond, Observatoire Astronomique de l'Univ. de Genève (Switzerland); D. Sosowska, Ecole Polytechnique Fédérale (Switzerland); I. Stilz, Max Planck Institute for Astronomy (Germany) and Landessternwarte Königstuhl (Germany); B. Tubbs, K. Wagner, Max Planck Institute for Astronomy (Germany); L. Weber, Observatoire Astronomique de l'Univ. de Genève (Switzerland); P. Weise, Max Planck Institute for Astronomy (Germany); L. Zago, Ctr. Suisse d'Electronique et Microtechnique (CSEM) (Switzerland)
- 7013 2K **Astrometric detection of exo-Earths in the presence of stellar noise** [7013-91]  
J. Catanzarite, Jet Propulsion Lab. (United States); N. Law, California Institute of Technology (United States); M. Shao, Jet Propulsion Lab. (United States)

---

## INTERFEROMETRY FROM SPACE: JOINT SESSION WITH CONFERENCE 7010

---

- 7013 2L **Precision astrometry with a space-based interferometer** [7013-92]  
S. C. Unwin, M. Shao, S. J. Edberg, Jet Propulsion Lab. (United States)
- 7013 2M **SIM-Lite: progress report** [7013-93]  
J. C. Marr-IV, M. Shao, R. Goullioud, Jet Propulsion Lab. (United States)
- 7013 2N **Terrestrial Planet Finder Interferometer: 2007–2008 progress and plans** [7013-94]  
P. R. Lawson, O. P. Lay, S. R. Martin, R. D. Peters, R. O. Gappinger, A. Ksendzov, D. P. Scharf, A. J. Booth, Jet Propulsion Lab. (United States); C. A. Beichman, Michelson Science Ctr., California Institute of Technology (United States); E. Serabyn, Jet Propulsion Lab. (United States); K. J. Johnston, U.S. Naval Observatory (United States); W. C. Danchi, NASA Goddard Space Flight Ctr. (United States)
- 7013 2O **Terrestrial exo-planet science by nulling interferometry: instrument design and scientific performance** [7013-95]  
O. Wallner, K. Ergenzinger, U. Johann, Astrium GmbH (Germany)
- 7013 2P **New observational concept for Darwin-like missions using a MOEMS-based programmable spectrometer** [7013-96]  
F. Zamkotsian, P. Lanzoni, Lab. d'Astrophysique de Marseille, CNRS (France); T. Viard, C. Buisset, Thales Alenia Space (France)
- 7013 2Q **The Fourier-Kelvin Stellar Interferometer (FKSI): a review, progress report, and update** [7013-98]  
W. C. Danchi, R. K. Barry, NASA Goddard Space Flight Ctr. (United States); P. R. Lawson, W. A. Traub, S. Unwin, Jet Propulsion Lab. (United States)
- 7013 2R **ESPRIT: a study concept for a far-infrared interferometer in space** [7013-99]  
W. Wild, SRON Netherlands Institute for Space Research (Netherlands) and Kapteyn Astronomical Institute, Univ. of Groningen (Netherlands); Th. de Graauw, SRON Netherlands Institute for Space Research (Netherlands) and Leiden Observatory (Netherlands); F. Helmich, A. Baryshev, SRON Netherlands Institute for Space Research (Netherlands) and Kapteyn Astronomical Institute, Univ. of Groningen (Netherlands); J. Cernicharo, Consejo Superior de Investigaciones Científicas (Spain); J. R. Gao, SRON Netherlands Institute for Space Research (Netherlands); A. Gunst, A. Bos, ASTRON, Dwingeloo (Netherlands); J.-W. den Herder, B. Jackson, SRON Netherlands Institute for Space Research (Netherlands); V. Koshelets, SRON Netherlands Institute for Space Research (Netherlands) and Institute of Radio Engineering and Electronics (Russia); H.-J. Langevelde, Joint Institute for VLBI in Europe (Netherlands); P. Maat, ASTRON, Dwingeloo (Netherlands); J. Martin-Pintado, Consejo Superior de Investigaciones Científicas (Spain); J. Noordam, ASTRON, Dwingeloo (Netherlands); P. Roelfsema, SRON Netherlands Institute for Space Research (Netherlands) and Kapteyn Astronomical Institute, Univ. of Groningen, (Netherlands); L. Venema, ASTRON, Dwingeloo (Netherlands); P. Wesselius, SRON Netherlands Institute for Space Research (Netherlands) and Kapteyn Astronomical Institute, Univ. of Groningen (Netherlands); P. Yagoubov, SRON Netherlands Institute for Space Research (Netherlands)
- 7013 2S **The wide-field imaging interferometry testbed (WIIT): recent progress and results** [7013-100]  
S. Rinehart, D. Leisawitz, B. Frey, R. Lyon, NASA Goddard Space Flight Ctr. (United States); S. Maher, Science Systems and Applications, Inc. (United States); N. Memarsadeghi, NASA Goddard Space Flight Ctr. (United States)

- 7013 2T **DAVINCI: a diluter aperture visible nulling coronagraphic instrument** [7013-101]  
M. Shao, S. Bairstow, B. Martin Levine, G. Vasisht, Jet Propulsion Lab. (United States);  
B. F. Lane, Draper Lab. (United States); G. Vasudevan, R. Woodruff, Lockheed-Martin Space  
Systems Corp. (United States); R. Samuele, Northrop-Grumman Space and Mission Systems  
Corp. (United States); J. Wynn, ITT Space Systems Division (United States); M. Clampin,  
R. Lyon, NASA Goddard Space Flight Ctr. (United States); O. Guyon, Univ. of Arizona  
(United States)

---

#### POSTER SESSION: GROUND INTERFEROMETERS

---

- 7013 2U **Plans for utilizing the Keck outrigger telescopes at NPOI (Best Poster Award)** [7013-102]  
M. DiVittorio, D. J. Hutter, US Naval Observatory Flagstaff Station (United States); M. Kelley,  
MHK Technology (United States)
- 7013 2V **Last technology and results from the IOTA interferometer** [7013-103]  
E. Pedretti, Univ. of St. Andrews (United Kingdom); W. A. Traub, Jet Propulsion Lab. (United  
States); J. D. Monnier, Univ. of Michigan (United States); P. A. Schuller, Institut  
d'Astrophysique Spatiale, Univ. Paris-Sud (France); S. Ragland, California Association for  
Research in Astronomy (United States); J.-P. Berger, Lab. d'Astrophysique de l'Observatoire  
de Grenoble (France); R. Millan-Gabet, Michelson Science Ctr., California Institute of  
Technology (United States); G. Wallace, Univ. of Massachusetts, Amherst (United States);  
M. Burke, M. G. Lacasse, Harvard-Smithsonian Ctr. for Astrophysics (United States);  
N. D. Thureau, Univ. of St. Andrews (United Kingdom); N. Carleton, Harvard-Smithsonian Ctr.  
for Astrophysics (United States)

---

#### POSTER SESSION: PROJECTS

---

- 7013 2W **Optical delay line system for the NIAOT prototype stellar interferometer** [7013-104]  
Z. Wu, Y. Zhu, Y. Chen, J. Wang, National Astronomical Observatories, Nanjing Institute of  
Astronomical Optics & Technology (China)

---

#### POSTER SESSION: INSTRUMENTS

---

- 7013 2Y **System overview of the VLTI Spectro-Imager** [7013-106]  
L. Joucou, J. P. Berger, F. Malbet, P. Kern, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de  
l'Observatoire de Grenoble (France); U. Beckmann, Max-Planck-Institute for  
Radioastronomy (Germany); D. Lorenzetti, INAF, Osservatorio di Astrofisica di Roma (Italy);  
L. Corcione, INAF, Osservatorio Astrofisico di Torino (Italy); G. Li Causi, INAF, Osservatorio di  
Astrofisica di Roma (Italy); D. Buscher, J. Young, Cavendish Lab., Univ. of Cambridge  
(United Kingdom); M. Gai, INAF/Osservatorio Astrofisico di Torino (Italy); G. Weigelt,  
Max-Planck-Institute for Radioastronomy (Germany); G. Zins, G. Duvert, K. Perraut, Univ.  
J. Fourier, CNRS, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); P. Labeyre,  
CEA/LETI (France); O. Absil, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de l'Observatoire  
de Grenoble (France); P. Garcia, Ctr. for Astrophysics, Univ. of Porto (Portugal); D. Loreggia,  
INAF, Osservatorio di Astrofisica di Roma (Italy); J. Lima, Univ. de Lisboa (Portugal);  
J. Rebordao, Instituto Nacional de Engenharia, Tecnologia e Inovacao (Portugal); S. Ligori,  
INAF, Osservatorio Astrofisico di Torino (Italy); A. Amorim, Univ. de Lisboa (Portugal);  
P. Rabou, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de l'Observatoire de Grenoble  
(France); J. B. Le Bouquin, European Southern Observatory (Chile); C. Haniff, Cavendish  
Lab., Univ. of Cambridge (United Kingdom); E. Le Coarer, P. Feautrier, G. Duchene,  
M. Benisty, A. Chelli, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de l'Observatoire de  
Grenoble (France); E. Herwats, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de

l'Observatoire de Grenoble (France) and Institut d'Astrophysique et de Géophysique (Belgium); A. Delboulb  , Univ. J. Fourier, CNRS, Lab. d'Astrophysique de l'Observatoire de Grenoble (France)

- 7013 2Z **Prospects for near-infrared characterisation of hot Jupiters with the VLTI Spectro-Imager (VSI) [7013-107]**  
S. Renard, O. Absil, J.-P. Berger, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); X. Bonfils, Observat  rio Astron  mico de Lisboa (Portugal); T. Forveille, F. Malbet, Lab. d'Astrophysique de l'Observatoire de Grenoble (France)
- 7013 30 **Near-IR spectrograph of VSI (VLTI Spectro Imager): dispersing the light from an integrated optics beam-combiner [7013-108]**  
D. Lorenzetti, G. Li Causi, R. Speziali, F. Vitali, INAF, Osservatorio Astronomico di Roma (Italy); D. Loreggia, INAF, Osservatorio Astronomico di Torino (Italy); C. Baffa, INAF, Osservatorio Astrofisico di Arcetri (Italy); P. Y. Kern, L. Jocou, F. Malbet, P. Rabou, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France)
- 7013 31 **Opto-mechanical design of the spectrometers of GRAVITY: the 6-Baseline K-Band interferometer for the VLTI [7013-109]**  
C. Straubmeier, Univ. of Cologne (Germany); F. Eisenhauer, Max-Planck-Institute for Extraterrestrial Physics (Germany); G. Perrin, Lab. d'Etudes Spatiales et d'Instrumentation en Astrophysique (France); W. Brandner, Max-Planck-Institut f  r Astronomie (Germany); A. Eckart, Univ. of Cologne (Germany)
- 7013 32 **MATISSE: concept analysis [7013-111]**  
S. Lagarde, B. Lopez, R. G. Petrov, CNRS H. Fizeau, UNS, OCA (France); K. H. Hofmann, S. Kraus, Max Planck Institut f  r Radioastronomie (Germany); W. Jaffe, Leiden Observatory (Netherlands); P. Antonelli, Y. Bresson, CNRS, H. Fizeau, UNS, OCA (France); Ch. Leinert, Max Planck Institut f  r Astronomie (Germany); A. Matter, CNRS, H. Fizeau, UNS, OCA (France)
- 7013 34 **Preparation of the calibration unit for LINC-NIRVANA [7013-114]**  
L. Labadie, F. de Bonis, S. Egner, T. Herbst, P. Bizenberger, M. Kr  rster, Max-Planck-Institut f  r Astronomie (Germany); A. Delboul  , Lab. d'Astrophysique de Grenoble (France)
- 7013 35 **Analysis of LBT LINC-NIRVANA simulated images of galaxies and young stellar objects [7013-115]**  
P. Ciliegi, INAF, Osservatorio Astronomico di Bologna (Italy); A. La Camera, G. Desider  , DISI, Genova Univ. (Italy); S. Antoniucci, INAF, Osservatorio Astronomico di Roma (Italy); C. Arcidiacono, INAF, Osservatorio Astronomico di Padova (Italy); M. Lombini, E. Diolaiti, E. Bellocchi, INAF, Osservatorio Astronomico di Bologna (Italy); F. Mannucci, INAF, Osservatorio Astrofisico di Arcetri (Italy); M. Bertero, P. Boccacci, DISI, Genova Univ. (Italy); D. Lorenzetti, B. Nisini, INAF, Osservatorio Astronomico di Roma (Italy)
- 7013 36 **LINC-NIRVANA observation preparation software: a flexible approach [7013-116]**  
A. Pavlov, J. Trowitzsch, W. G  ssler, J. Berwein, Max-Planck-Institut f  r Astronomie (Germany)
- 7013 37 **The LINC-NIRVANA Fringe and Flexure Tracker: the testbed interferometer [7013-117]**  
T. Bertram, B. Lindhorst, E. Tremou, S. Rost, Y. Wang, I. Wank, G. Witzel, C. Straubmeier, A. Eckart, Univ. of Cologne (Germany)
- 7013 38 **The LINC-NIRVANA Fringe and Flexure Tracker: testing piston control performance [7013-118]**  
S. Rost, T. Bertram, B. Lindhorst, C. Straubmeier, E. Tremou, Y. Wang, G. Witzel, A. Eckart, Univ. of Cologne (Germany)

- 7013 39 **NIC: LBTI's nulling and imaging camera** [7013-119]  
P. M. Hinz, E. Solheid, O. Durney, W. F. Hoffmann, Steward Observatory, The Univ. of Arizona (United States)
- 7013 3A **LMIRcam: an L/M-band imager for the LBT combined focus** [7013-120]  
J. C. Wilson, Univ. of Virginia (United States); P. M. Hinz, Univ. of Arizona (United States); M. F. Skrutskie, Univ. of Virginia (United States); T. Jones, Univ. of Minnesota (United States); E. Solheid, Univ. of Arizona (United States); J. Leisenring, Univ. of Virginia (United States); P. Garnavich, Univ. of Notre Dame (United States); M. Kenworthy, Univ. of Arizona (United States); M. J. Nelson, Univ. of Virginia (United States); C. E. Woodward, Univ. of Minnesota (United States)

---

#### POSTER SESSION: SYSTEMS

---

- 7013 3B **Adaptive optics for the CHARA Array** [7013-121]  
S. T. Ridgway, NOAO (United States); H. A. McAlister, T. ten Brummelaar, A. Merand, J. Sturmann, L. Sturmann, N. Turner, CHARA (United States)
- 7013 3C **General performance analysis of a Fizeau interferometer** [7013-122]  
S. E. Egner, T. M. Herbst, Max-Planck-Institute for Astronomy (Germany); C. Arcidiacono, INAF, Osservatorio Astrofisico di Padova (Italy)
- 7013 3E **Innovative pupil topographies for sparse aperture telescopes and SNR** [7013-124]  
J. Breckinridge, N. Bryant, J. Lorre, Jet Propulsion Lab. (United States)

---

#### POSTER SESSION: SUBSYSTEMS

---

- 7013 3F **Simultaneous observation of two stars using the PRIMA Star Separator** [7013-125]  
J. Nijenhuis, H. Visser, H. de Man, B. Dekker, J. Mekking, F. Kamphues, TNO Science & Industry (Netherlands)
- 7013 3H **MROI's automated alignment system** [7013-127]  
A. V. Shtromberg, C. A. Jurgenson, Magdalena Ridge Observatory, New Mexico Institute of Mining and Technology (United States); D. F. Buscher, C. A. Haniff, J. S. Young, Univ. of Cambridge, Cavendish Lab. (United Kingdom); F. G. Santoro, M. T. Paz, J. M. Steenson, L. Berger, Magdalena Ridge Observatory, New Mexico Institute of Mining and Technology (United States)

---

#### POSTER SESSION: NEW CONCEPTS

---

- 7013 3J **Steps toward hypertelescopes on Earth and in space** [7013-129]  
A. Labeyrie, Collège de France and Observatoire de la Côte d'Azur (France); H. Le Coroller, Observatoire de Haute-Provence (France); J. Dejonghe, Collège de France and Observatoire de Haute-Provence (France)

## Part Three

---

### POSTER SESSION: OPTICAL TECHNOLOGY, INTEGRATED OPTICS AND FIBERS

---

- 7013 3K **Mount-induced deflections in eight-inch flat mirrors at the Navy Prototype Optical Interferometer** [7013-130]  
J. H. Clark III, Naval Research Lab., NPOI (United States); F. E. Penado, Northern Arizona Univ. (United States); M. DiVitorrio, U.S. Naval Observatory Flagstaff Station (United States); J. P. Walton, Talus Engineering, NPOI (United States)
- 7013 3L **Extracting the zero-gravity surface figure of a mirror** [7013-131]  
E. E. Bloemhof, J. C. Lam, V. A. Feria, Z. Chang, Jet Propulsion Lab. (United States)
- 7013 3M **The Magdalena Ridge Observatory Interferometer: custom near-IR beamsplitter and AR coatings** [7013-132]  
E. K. Block, C. A. Jurgenson, New Mexico Institute of Mining and Technology, Magdalena Ridge Observatory (United States); D. F. Buscher, C. A. Haniff, J. S. Young, Univ. of Cambridge, Cavendish Lab. (United Kingdom); M. J. Creech-Eakman, New Mexico Institute of Mining and Technology, Magdalena Ridge Observatory (United States); A. Jaramillo, R. Schmell, Optical Surface Technologies, LLC (United States)
- 7013 3N **Developing high-performance reflective coatings for the tunable filter and the high-order interferometer of the 3D-NTT** [7013-133]  
M.-M. de Denus-Baillargeon, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada) and Institut Fresnel, Domaine Univ. St-Jérôme (France); L. Abel-Tibérini, M. Lequime, Institut Fresnel, Domaine Univ. St-Jérôme (France); C. Carignan, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada), Observatoire d'Astrophysique de l'Univ. de Ouagadougou (Burkina Faso), and Lab. d'Astrophysique de Marseille, Observatoire Astronomique de Marseille-Provence (France); B. Épinat, J.-L. Gach, Lab. d'Astrophysique de Marseille, Observatoire Astronomique de Marseille-Provence (France); O. Hernandez, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada); M. Marcellin, Lab. d'Astrophysique de Marseille, Observatoire Astronomique de Marseille-Provence (France)
- 7013 3O **Far-Infrared Interferometric Telescope Experiment (FITE): sensor optics (Best Poster Award)** [7013-134]  
T. Kohyama, Nagoya Univ. (Japan); H. Shibai, Osaka Univ. (Japan); M. Kawada, T. Watabe, Nagoya Univ. (Japan); T. Matsuo, Osaka Univ. (Japan); A. Ohkubo, Nagoya Univ. (Japan); E. Katoh, T. Kanoh, Osaka Univ. (Japan); M. Suzuki, S. Mochizuki, Y. Matsumoto, H. Morishita, K. Yamamoto, R. Kanoh, A. Nakashima, M. Tanabe, Nagoya Univ. (Japan); Y. Doi, The Univ. of Tokyo (Japan); M. Narita, Institute of Space and Astronautical Science, JAXA (Japan)
- 7013 3P **Single-mode LiNbO<sub>3</sub>-based waveguides for L-band interferometry** [7013-135]  
G. Martin, E. Anselm, T. Seure, T. Moulin, A. Delboulbé, L. Jocou, Lab. d'Astrophysique de Grenoble (France); N. Bodin Courjal, FEMTO-ST, Univ. de Franche-Comté (France); O. Caballero, J. Olivares, Univ. Autónoma de Madrid (Spain)
- 7013 3Q **Characterization of silver halide fiber for modal filtering on mid-infrared: imaging, nulling, and spectral transmission** [7013-136]  
R. Grille, Lab. d'Astrophysique de Grenoble, CNRS, Univ. Joseph Fourier (France); L. Labadie, Max-Planck-Institut für Astronomie (Germany); P. Kern, G. Martin, B. Arezki, Lab. d'Astrophysique de Grenoble, CNRS, Univ. Joseph Fourier (France)

---

#### **POSTER SESSION: SINGLE TELESCOPES**

---

- 7013 3R **Optical design of the Dragonfly interferometric imager** [7013-137]  
J. G. Robertson, P. G. Tuthill, Univ. of Sydney (Australia); S. Lacour, Univ. of Sydney (Australia) and Lab. d'Astrophysique, Observatoire de Grenoble (France)
- 7013 3S **Phase mask coronagraphy: use of a Mach-Zehnder interferometer for achromatic four-quadrant phase masks** [7013-138]  
A. Carlotti, C. Aime, G. Ricort, Univ. de Nice Sophia-Antipolis, CNRS, Observatoire de la Côte d'Azur (France)
- 7013 3T **IRAN: laboratory test bench for hyper telescope pupil-plane recombination** [7013-139]  
F. Allouche, European Southern Observatory (Germany) and Lab. H. Fizeau, Univ. de Nice Sophia-Antipolis, CNRS (France); F. Vakili, Lab. H. Fizeau, Univ. de Nice Sophia-Antipolis, CNRS (France); A. Glindemann, European Southern Observatory (Germany); E. Aristidi, L. Abe, E. Fossat, R. Douet, Lab. H. Fizeau, Univ. de Nice Sophia-Antipolis, CNRS (France)
- 7013 3U **Study of a new cophasing system for hyper telescopes** [7013-140]  
N. Tarmoul, D. Mourard, F. Hénault, Lab. H. Fizeau, CNRS, Observatoire de la Côte d'Azur (France)

---

#### **POSTER SESSION: ASTROMETRY**

---

- 7013 3V **The astrometric data-reduction software for exoplanet detection with PRIMA** [7013-141]  
N. M. Elias II, R. Köhler, I. Stilz, Zentrum für Astronomie, Univ. Heidelberg (Germany) and Max-Planck-Institut für Astronomie (Germany); S. Reffert, Zentrum für Astronomie, Univ. Heidelberg (Germany); R. Geisler, Zentrum für Astronomie, Univ. Heidelberg (Germany) and Max-Planck-Institut für Astronomie (Germany); A. Quirrenbach, Zentrum für Astronomie, Univ. Heidelberg (Germany); J. de Jong, F. Delplancke, European Southern Observatory (Germany); R. N. Tubbs, R. Launhardt, T. Henning, Max-Planck-Institut für Astronomie (Germany); D. Mégevand, D. Queloz, Observatoire Astronomique, Univ. de Genève (Switzerland)
- 7013 3W **Extragalactic reference targets for PRIMA** [7013-142]  
G. T. van Belle, R. Abuter, European Southern Observatory (Germany); J. Ngoumou, European Southern Observatory (Germany) and Ludwig-Maximilians-Univ. München (Germany); F. Delplancke, European Southern Observatory (Germany); J. Sahlmann, European Southern Observatory (Germany) and Observatoire Astronomique de l'Univ. de Genève (Switzerland)

---

#### **POSTER SESSION: IMAGING**

---

- 7013 3X **Image reconstruction at Cambridge University** [7013-144]  
F. Baron, J. S. Young, Univ. of Cambridge, Cavendish Lab. (United Kingdom)
- 7013 3Y **Aperture-synthesis imaging with the mid-infrared instrument MATISSE** [7013-145]  
K.-H. Hofmann, M. Heininger, Max-Planck-Institute for Radioastronomy (Germany); W. Jaffe, Sternwacht Leiden (Netherlands); S. Kraus, Max-Planck-Institute for Radioastronomy (Germany); B. Lopez, Observatoire de la Côte d'Azur (France); F. Millour, D. Schertl, G. Weigelt, Max-Planck-Institute for Radioastronomy (Germany); S. Wolf, Institut für Theoretische Physik und Astrophysik (Germany)

7013 32 **Phase closure image reconstruction for future VLTI instrumentation** [7013-146]  
M. E. Filho, Ctr. de Astrofisica, Univ. do Porto (Portugal); S. Renard, Observatoire de Lyon (France); P. Garcia, Ctr. de Astrofisica, Univ. do Porto (Portugal) and Univ. do Porto (Portugal); G. Duvert, Lab. d'Astrophysique de Grenoble, Observatoire de Grenoble (France); G. Duchene, Univ. of California, Berkeley (United States); E. Thiebaut, Observatoire de Lyon (France); J. Young, Cavendish Lab. (United Kingdom); O. Absil, J.-P. Berger, Univ. Joseph Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); T. Beckert, S. Hoenig, D. Schertl, G. Weigelt, Max-Planck Institute for Radioastronomy (Germany); L. Testi, E. Tatuli, INAF, Osservatorio di Astrofisica di Arcetri (Italy); V. Borkowski, M. de Becker, J. Surdej, Institute of Astrophysics and Geophysics (Belgium); B. Aringer, J. Hron, T. Lebzelter, Institute of Astrophysics, Univ. of Wien (Austria); A. Chiavassa, R. Corradi, Groupe de Recherche en Astronomie et Astrophysique du Languedoc (France); T. Harries, Univ. of Exeter (United Kingdom)

7013 40 **AIRY-LN: an ad-hoc numerical tool for deconvolution of images from the LBT instrument LINC-NIRVANA** [7013-147]  
G. Desiderà, A. La Camera, P. Boccacci, M. Bertero, Univ. degli Studi di Genova (Italy); M. Carbillat, Lab. H. Fizeau, Univ. de Nice Sophia Antipolis, CNRS, Observatoire de la Côte d'Azur (France)

---

#### POSTER SESSION: COHERENT INTEGRATION AND PHASE REFERENCING

---

7013 41 **First step to detect an extrasolar planet using simultaneous observations with the two VLTI instruments AMBER and MIDI (Best Poster Award)** [7013-148]  
A. Matter, CNRS H. Fizeau, Observatoire de la Côte d'Azur (France); W. Jaffe, Leiden Observatory (Netherlands); M. Vannier, CNRS H. Fizeau, UNS (France); S. Morel, European Southern Observatory (Chile); S. Lagarde, B. Lopez, CNRS H. Fizeau, Observatoire de la Côte d'Azur (France); F. Rantakyrö, T. Rivinius, European Southern Observatory (Chile); R. G. Petrov, CNRS H. Fizeau, UNS (France); C. Leinert, Max-Planck-Institut für Astronomie (Germany)

7013 42 **Measurements of binary stars with coherent integration of NPOI data** [7013-149]  
A. M. Jorgensen, New Mexico Institute of Mining and Technology (United States); H. Schmitt, Naval Research Lab. (United States) and Interferometrics, Inc. (United States); R. Hindsley, J. T. Armstrong, T. A. Pauls, Naval Research Lab. (United States); D. Mozurkewich, Seabrook Engineering (United States); D. J. Hutter, Naval Observatory Flagstaff Station (United States); C. Tycner, Central Michigan Univ. (United States)

---

#### POSTER SESSION: FRINGE TRACKING

---

7013 43 **Multiple beam combination experiments for fringe tracking on next generation interferometers** [7013-150]  
S. Ligori, M. Gai, L. Corcione, D. Loreggia, G. Massone, INAF, Osservatorio Astronomico di Torino (Italy)

7013 44 **Simulations of imperfect PRIMA fringe sensing units and calibration strategies** [7013-151]  
R. Geisler, N. M. Elias II, Zentrum für Astronomie, Univ. Heidelberg (Germany) and Max-Planck-Institut für Astronomie (Germany); A. Quirrenbach, Zentrum für Astronomie, Univ. Heidelberg (Germany); R. Köhler, Zentrum für Astronomie, Univ. Heidelberg (Germany) and Max-Planck-Institut für Astronomie (Germany); R. N. Tubbs, T. Henning, Max-Planck-Institut für Astronomie (Germany); D. Queloz, Observatoire Astronomique de l'Univ. de Genève (Switzerland)

- 7013 45 **Fringe tracker for the VLTI spectro-imager** [7013-152]  
L. Corcione, D. Bonino, Istituto Nazionale di Astrofisica, Osservatorio Astronomico di Torino (Italy); D. F. Busher, Cavendish Lab., Univ. of Cambridge (United Kingdom); M. Gai, S. Ligori, D. Loreggia, G. Massone, Istituto Nazionale di Astrofisica, Osservatorio Astronomico di Torino (Italy); J. S. Young, Cavendish Lab., Univ. of Cambridge (United Kingdom)
- 7013 47 **Event-based simulation of fringe tracking in an optical interferometer** [7013-154]  
A. M. Jorgensen, New Mexico Institute of Mining and Technology (United States)

---

#### **POSTER SESSION: CONTROL SOFTWARE, DATA REDUCTION AND MODEL FITTING**

---

- 7013 48 **AMDC: de-biasing AMBER visibilities for limiting magnitude sources** [7013-155]  
G. Li Causi, S. Antoniucci, INAF, Rome Astronomical Observatory (Italy); E. Tatulli, Lab. d'Astrophysique, Observatoire de Grenoble (France)
- 7013 49 **"Advanced" data reduction for the AMBER instrument** [7013-156]  
F. Millour, Max-Planck-Institut für Radioastronomy (Germany); B. Valat, R. G. Petrov, M. Vannier, Nice Univ. (France)
- 7013 4A **The VLTI real-time reflective memory data streaming and recording system** [7013-157]  
R. Abuter, D. Popovic, E. Pozna, European Southern Observatory (Germany); J. Sahlmann, European Southern Observatory (Germany) and Observatoire de Genève (Switzerland); F. Eisenhauer, Max-Planck-Institut für Extraterrestrische Physik (Germany)
- 7013 4B **IVC: a simulation and model-fitting tool for optical-IR interferometry** [7013-158]  
G. Li Causi, INAF, Osservatorio Astronomico di Roma (Italy)
- 7013 4C **Software and control for the Magdalena Ridge Observatory interferometer delay lines** [7013-159]  
J. Young, R. Boysen, D. Buscher, M. Fisher, E. Seneta, Univ. of Cambridge, Cavendish Lab. (United Kingdom)

---

#### **POSTER SESSION: CALIBRATION**

---

- 7013 4D **Pipeline reductions of AMBER calibrator data** [7013-160]  
C. A. Hummel, European Southern Observatory (Germany)
- 7013 4E **VLTI behind the scene: 1001 nights of data flow operations at ESO** [7013-161]  
I. Percheron, European Southern Observatory (Germany)

---

#### **POSTER SESSION: COMMUNITY**

---

- 7013 4F **Cost estimate for the Kilometric Optical Interferometer (KOI)** [7013-162]  
E. J. Bakker, C. Parameswariah, New Mexico Tech/Magdalena Ridge Observatory (United States); J. Rajagopal, CTIO/NOAO (Chile)
- 7013 4G **A status report of the working group on calibrators of IAU Commission 54** [7013-163]  
C. A. Hummel, European Southern Observatory (Germany)

- 7013 4H **Recent developments in optical interferometry data standards** [7013-164]  
J. S. Young, Astrophysics Group, Cavendish Lab. (United Kingdom); W. D. Cotton, NRAO (United States); W. Gässler, Max-Planck-Institut für Astronomie (Germany); R. Millan-Gabet, Michelson Science Ctr., California Institute of Technology (United States); J. D. Monnier, Univ. of Michigan (United States); T. A. Pauls, Naval Research Lab. (United States); I. Percheron, European Southern Observatory (Germany)

---

#### POSTER SESSION: SITE TESTING

---

- 7013 4I **Interferential seeing monitor** [7013-166]  
Z. Benkhaldoun, A. Habib, M. Sabil, Y. El Azhari, T. El Halkouj, O. Azagrouze, LPHEA Cadi Ayyad Univ. (Morocco)
- 7013 4J **PropHAn: horizontal propagation sensor for interferometry at Dome C** [7013-167]  
H. Trinquet, F. Vakili, G. Petitjean, F. Jeanneaux, J.-B. Daban, J. Vernin, Lab. H. Fizeau, Univ. de Nice Sophia-Antipolis, CNRS, Observatoire de la Côte d'Azur (France)

---

#### POSTER SESSION: SCIENCE

---

- 7013 4K **Study of the science capabilities of PRIMA in the Galactic Center** [7013-168]  
H. Bartko, O. Pfuhl, F. Eisenhauer, Max-Planck-Institute for Extraterrestrial Physics (Germany); R. Genzel, Max-Planck-Institute for Extraterrestrial Physics (Germany) and Univ. of California, Berkeley (United States); S. Gillessen, S. Rabien, Max-Planck-Institute for Extraterrestrial Physics (Germany); R. Abuter, G. v. Belle, F. Delplancke, S. Menardi, European Southern Observatory (Germany); J. Sahlmann, European Southern Observatory (Germany) and Observatoire de Genève (Switzerland)
- 7013 4L **Prospects for observing the Galactic Center: combining LBT LINC-NIRVANA observations in the near-infrared with observations in the mm/sub-mm wavelength domain** [7013-169]  
A. Eckart, Univ. of Cologne (Germany) and Max-Planck-Institut für Radioastronomie (Germany); G. Witzel, Univ. of Cologne (Germany); D. Kunneriath, S. König, Univ. of Cologne (Germany) and Max-Planck-Institut für Radioastronomie (Germany); C. Straubmeier, T. Bertram, Univ. of Cologne (Germany); M. Zamaninasab, Univ. of Cologne (Germany) and Max-Planck-Institut für Radioastronomie (Germany); R. Schödel, Univ. of Cologne (Germany) and Instituto de Astrofísica de Andalucía (Spain); K. Muzic, E. Tremou, Univ. of Cologne (Germany) and Max-Planck-Institut für Radioastronomie (Germany); L. Meyer, Univ. of California, Los Angeles (United States); S. Rost, Univ. of Cologne (Germany); S. Vogel, Univ. of Maryland, College Park (United States); H. Wiesemeyer, IRAM (Spain); L. Sjouwerman, National Radio Astronomy Observatory (United States); T. Herbst, Max-Planck-Institut für Astronomie (Germany)
- 7013 4M **Mid-infrared view of cool evolved stars with the Very Large Telescope Interferometer** [7013-171]  
K. Ohnaka, T. Driebe, K.-H. Hofmann, G. Weigelt, Max-Planck-Institut für Radioastronomie (Germany); M. Wittkowski, European Southern Observatory (Germany)
- 7013 4N **Science case for 1 mas spectro-imaging in the near-infrared** [7013-172]  
P. J. V. Garcia, Univ. do Porto (Portugal) and Ctr. de Astrofísica, Univ. do Porto (Portugal); J.-P. Berger, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); A. Marconi, Univ. di Firenze (Italy); A. Krivov, Astrophysical Institute and Univ. Observatory (Germany); A. Chiavassa, Groupe de Recherche en Astronomie et Astrophysique du Languedoc (France); B. Aringer, Univ. of Vienna (Austria); B. Nisini, INAF, Osservatorio Astronomico di Roma (Italy); D. Defrére, D. Mawet, Institut d'Astrophysique et Géophysique, Univ. de Liège (Belgium); D. Schertl, Max-Planck Institute for Radioastronomy (Germany); E. Tatuli,

INAF, Osservatorio di Astrofisica di Arcetri (Italy); E. Thiébaut, Observatoire de Lyon, CRAL (France); F. Baron, Cavendish Lab., Univ. of Cambridge (United Kingdom); F. Malbet, G. Duchéne, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); G. Weigelt, Max-Planck Institute for Radioastronomy (Germany); G. Duvert, Jean-Marie Mariotti Ctr., CNRS (France); G. Henri, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); H. Klahr, Max Planck Institute for Astronomy (Germany); J. Surdej, Institut d'Astrophysique et Géophysique, Univ. de Liège (Belgium); J.-C. Augereau, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); J.-F. Claeskens, Institut d'Astrophysique et Géophysique, Univ. de Liège (Belgium); J. Young, Cavendish Lab., Univ. of Cambridge (United Kingdom); J. Hron, Univ. of Vienna (Austria); K. Perraut, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); K.-H. Hofmann, Max-Planck Institute for Radioastronomy (Germany); L. Testi, INAF, Osservatorio di Astrofisica di Arcetri (Italy); M. Cunha, M. Filho, Ctr. de Astrofísica, Univ. do Porto (Portugal); M. De Becker, Institut d'Astrophysique et Géophysique, Univ. de Liège (Belgium); O. Absil, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); O. Chesneau, Jean-Marie Mariotti Ctr., CNRS (France); P. Collette, Institut d'Astrophysique et Géophysique, Univ. de Liège (Belgium); P.-O. Petrucci, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); R. Neuhaeuser, Astrophysical Institute and Univ. Observatory (Germany); R. Corradi, Isaac Newton Group of Telescopes (Spain) and Instituto Astrofísica de Canarias (Spain); S. Antón, Univ. de Lisboa (Portugal); S. Wolf, Max Planck Institute for Astronomy (Germany); S. Hoenig, Max-Planck Institute for Radioastronomy (Germany); S. Renard, Univ. J. Fourier, CNRS, Lab. d'Astrophysique de Grenoble (France); T. Forveille, Canada-France-Hawaii Telescope Corp. (United States); T. Beckert, Max-Planck Institute for Radioastronomy (Germany); T. Lebzelter, Univ. of Vienna (Austria); T. Harries, Univ. of Exeter (United Kingdom); V. Borkowski, Institut d'Astrophysique et Géophysique, Univ. de Liège (Belgium); X. Bonfils, Ctr. de Astronomia e Astrofísica da Univ. de Lisboa (Portugal) and Ctr. de Astrofísica, Univ. do Porto (Portugal)

---

#### **POSTER SESSION: NULLING**

---

- 7013 4O **Tests of achromatic phase shifters performed on the SYNAPSE test bench: a progress report** [7013-62]  
 P. Gabor, P. A. Schuller, Institut d'Astrophysique, Univ. Paris-Sud II (France); B. Chazelas, Observatoire de Genève (Switzerland); M. Decaudin, A. Labèque, P. Duret, Institut d'Astrophysique, Univ. Paris-Sud II (France); Y. Rabbia, Observatoire de la Côte d'Azur (France); R. Launhardt, Max-Planck-Institut für Astronomie (Germany); J. Gay, Observatoire de la Côte d'Azur (France); Z. Sodnik, European Space Agency (Netherlands); M. Barillot, Thales Alenia Space (France); F. Brachet, Ctr. National d'Etudes Spatiales (France); T. Laurent, Univ. Liège (Belgium); S. Jacquinod, Institut d'Astrophysique, Univ. Paris-Sud II (France); D. Vandormael, J. Loicq, Ctr. Spatial de Liège (Belgium); D. Mawet, Univ. Liège, Institut d'Astrophysique et de Géophysique (Belgium); M. Ollivier, A. Léger, Institut d'Astrophysique, Univ. Paris-Sud II (France)
- 7013 4P **Real-time estimation of exoplanetary systems astrometry and spectroscopy from nulling interferometry data** [7013-143]  
 A. R. Belu, C. Theys-Ferrari, H. Lantéri, Univ. de Nice Sophia-Antipolis, CNRS, OCA (France)
- 7013 4Q **High dynamic range interferometric observations of exozodiacal discs: performance comparison between ground, space, and Antarctica** [7013-174]  
 O. Absil, LAOG, CNRS (France) and Univ. Joseph Fourier (France); D. Defrère, Institut d'Astrophysique et de Géophysique, Univ. de Liège (Belgium); V. Coudé du Foresto, LESIA, CNRS (France) and Observatoire de Paris-Meudon (France); E. Di Folco, Observatoire Astronomique de l'Univ. de Genève (Switzerland); R. den Hartog, ESA/ESTEC (Netherlands); J.-C. Augereau, LAOG, CNRS (France) and Univ. Joseph Fourier (France)

- 7013 4R **Breadboarding an achromatic phase shifter for mid-infrared nulling interferometry** [7013-175]  
R. Launhardt, Max Planck Institute for Astronomy (Germany)

---

**POSTER SESSION: SPACE**

---

- 7013 4T **Overview of the SIM PlanetQuest Light mission concept** [7013-177]  
R. Goullioud, J. H. Catanzarite, F. G. Dekens, M. Shao, J. C. Marr IV, Jet Propulsion Lab. (United States)
- 7013 4U **SIM-Lite: status of the engineering progress toward flight** [7013-178]  
F. G. Dekens, E. E. Bloemhof, S. Dubovitsky, D. Eldred, R. Goullioud, M. Jeganathan, F. Nicaise, F. Zhao, Jet Propulsion Lab. (United States)
- 7013 4V **Metrology optical power budgeting in SIM using statistical analysis techniques** [7013-179]  
G. M. Kuan, Jet Propulsion Lab. (United States)
- 7013 4W **An introduction to the Guide-2 telescope testbed for the SIM Planet Quest Light mission** [7013-180]  
I. Hahn, J. Sandhu, M. Weilert, R. Smythe, F. Nicaise, B. Kang, F. Dekens, R. Goullioud, Jet Propulsion Lab. (United States)
- 7013 4X **Brassboard Astrometric Beam Combiner (ABC) development for the Space Interferometry Mission (SIM)** [7013-181]  
M. Jeganathan, G. Kuan, M. Rud, S. Lin, K. Sutherland, J. Moore, X. An, Jet Propulsion Lab. (United States)
- 7013 4Y **SIM PlanetQuest spectral calibration development unit beam combiner** [7013-182]  
H. Tang, Jet Propulsion Lab. (United States)
- 7013 4Z **Picometer accuracy white light fringe modeling for SIM PlanetQuest spectral calibration development unit** [7013-183]  
C. Zhai, J. Yu, M. Shao, R. Goullioud, X. An, R. Demers, M. Milman, T. Shen, H. Tang, Jet Propulsion Lab. (United States)
- 7013 50 **Achievements of picometer performance from interferometer spectral calibration development unit (SCDU)** [7013-184]  
T. J. Shen, C. Zhai, X. An, H. Tang, G. Sun, R. T. Demers, Jet Propulsion Lab. (United States)
- 7013 51 **Certification of the full size double corner cube fiducials for the Space Interferometer Mission-PlanetQuest test bed** [7013-185]  
J. Burke, K. L. Green, Commonwealth Scientific and Industrial Research Organisation (Australia); N. Raouf, Jet Propulsion Lab. (United States); J. A. Seckold, B. F. Oreb, Commonwealth Scientific and Industrial Research Organisation (Australia)
- 7013 52 **The mask designs for Space Interferometer Mission (SIM)** [7013-186]  
X. Wang, Jet Propulsion Lab. (United States)
- 7013 53 **Analysis of planet effect of reference star on searching for Earth-like planets** [7013-187]  
X. Pan, M. Shao, Jet Propulsion Lab. (United States)
- 7013 54 **High-precision narrow angle astrometry with a space-borne interferometer** [7013-188]  
M. H. Milman, D. Murphy, Jet Propulsion Lab. (United States)

- 7013 55 **Minimizing instrumental polarization in the Multiangle SpectroPolarimetric Imager (MSPI) using diattenuation balancing between the three mirror coatings** [7013-189]  
A.-B. Mahler, College of Optical Sciences, The Univ. of Arizona (United States); N. A. Raouf, Jet Propulsion Lab. (United States); P. K. Smith, S. C. McClain, R. A. Chipman, College of Optical Sciences, The Univ. of Arizona (United States)
- 7013 56 **Nonlinear sensitivity analysis for free-flying nulling interferometers** [7013-190]  
K. Ergenzinger, O. Wallner, Astrium GmbH (Germany); A. Villien, Astrium S.A.S. (France); U. Johann, Astrium GmbH (Germany)
- 7013 58 **Novel reconfigurable wide-beam radio interferometer for space physics instrumentation** [7013-193]  
G. Dekoulis, F. Honary, Space Plasma Environment and Radio Science Group, Lancaster Univ. (United Kingdom)

*Author Index*

# Conference Committee

## Symposium Chairs

**Mark C. Clampin**, NASA Goddard Space Flight Center (United States)  
**Alan F. M. Moorwood**, European Southern Observatory (Germany)

## Symposium Cochairs

**Masanori Iye**, National Astronomical Observatory of Japan (Japan)  
**Douglas A. Simons**, Gemini Observatory (United States)

## Conference Chairs

**Markus Schöller**, European Southern Observatory (Germany)  
**William C. Danchi**, NASA Goddard Space Flight Center (United States)  
**Françoise Delplancke**, European Southern Observatory (Germany)

## Program Committee

**David F. Buscher**, University of Cambridge (United Kingdom)  
**Roland H. den Hartog**, European Space Agency (Netherlands)  
**Dawn M. Gelino**, California Institute of Technology (United States)  
**Thomas M. Herbst**, Max-Planck-Institut für Astronomie (Germany)  
**Donald J. Hutter**, U.S. Naval Observatory (United States)  
**John D. Monnier**, University of Michigan (United States)  
**Martin C. Noecker**, Ball Aerospace & Technologies Corporation  
(United States)  
**Jayadev K. Rajagopal**, National Optical Astronomy Observatory  
(Chile)  
**Karine Rousselet-Perraut**, Laboratoire d'Astrophysique de  
l'Observatoire de Grenoble (France)  
**Hiroshi Shibai**, Nagoya University (Japan)  
**Peter G. Tuthill**, The University of Sydney (Australia)  
**Farrokh Vakili**, Université de Nice Sophia Antipolis (France)

## Session Chairs

### Highlights

**Farrokh Vakili**, Université de Nice Sophia Antipolis (France)

### Status I

**Farrokh Vakili**, Université de Nice Sophia Antipolis (France)

Science I

**John D. Monnier**, University of Michigan (United States)

Status II

**John D. Monnier**, University of Michigan (United States)

Systems

**Peter G. Tuthill**, The University of Sydney (Australia)

IAU

**Peter G. Tuthill**, The University of Sydney (Australia)

Subsystems

**Françoise Delplancke**, European Southern Observatory (Germany)

Theses

**Françoise Delplancke**, European Southern Observatory (Germany)

Science II

**Thomas M. Herbst**, Max-Planck-Institut für Astronomie (Germany)

New Projects

**Thomas M. Herbst**, Max-Planck-Institut für Astronomie (Germany)

IO and Fibers

**Jayadev K. Rajagopal**, NASA Goddard Space Flight Center (United States)

Fringe Tracking

**Karine Rousselet-Perraut**, Laboratoire d'Astrophysique de l'Observatoire de Grenoble (France)

Phases

**David F. Buscher**, University of Cambridge (United Kingdom)

Imaging

**David F. Buscher**, University of Cambridge (United Kingdom)

Science III

**Françoise Delplancke**, European Southern Observatory (Germany)

Atmosphere

**Françoise Delplancke**, European Southern Observatory (Germany)

Nulling

**Françoise Delplancke**, European Southern Observatory (Germany)

**Hiroshi Shibai**, Osaka University (Japan)

Science IV

**Donald J. Hutter**, U.S. Naval Observatory (United States)

Instruments

**Donald J. Hutter**, U.S. Naval Observatory (United States)

**William C. Danchi**, NASA Goddard Space Flight Center (United States)

Single Apertures

**William C. Danchi**, NASA Goddard Space Flight Center (United States)

New Concepts

**Martin C. Noecker**, Ball Aerospace & Technologies Corporation  
(United States)

Best PhD in Interferometry 2008 Prize

**Markus Schöller**, European Southern Observatory (Germany)

Astrometry

**Martin C. Noecker**, Ball Aerospace & Technologies Corporation  
(United States)

Interferometry from Space: Joint Session with Conference 7010

**William C. Danchi**, NASA Goddard Space Flight Center (United States)

**Howard A. MacEwen**, ManTech SRS Technologies (United States)

**Markus Schöller**, European Southern Observatory (Germany)

**Jacobus M. Oschmann, Jr.**, Ball Corporation (United States)

